



P.O. Box 701230  
Tulsa, Oklahoma 74170

US Department of the Interior  
Bureau of Indian Affairs  
Eastern Oklahoma Region  
Osage Agency  
PO Box 1539  
Pawhuska, Oklahoma 74056-1539

RE: Completed 139 for Blackland-McComb 18w  
SW/4 Section 1-27N-7E  
Osage County, OK.

To Whom it May Concern,

Please find attached the completed 139 for the Blackland-McComb 18W injection well workover. The well has been repaired, MIT'd and put back to injection. Please contact Lanny Woods 918-851-0468 [lannywoods@jirehresourcesllc.com](mailto:lannywoods@jirehresourcesllc.com) for any questions or problems. A copy of this report has been sent via email to Andrew Yates of the EPA – UIC office in Pawhuska and to Chris Tingey of the EPA Dallas, Texas office.

Best Regards,

A handwritten signature in black ink, appearing to read "Lanny Woods", is written over a horizontal line.

Lanny Woods

## DEPARTMENT OF THE INTERIOR

Osage Indian Agency  
PAWHUSKA, OK 74056Contract No: 406-746-0  
Rest/Non-Rest: NON-Rest  
Permit No: 16406427185

PAWHUSKA 09/24/16 100809

## APPLICATION FOR OPERATION OR REPORT ON WELL

Date: 8/19/2016Osage County Land: C444

(Commencement money paid to whom)

9/20/16  
(Date)\$6500.00  
(Amount)Well No. 18W is located 330 ft. from (N/S) line and 1650 ft. from (E/W) line.SW/4 Sec. 1  
(1/4 Section & No.)27N  
(Township)7E  
(Range)

Osage County, Oklahoma.

The elevation of the (surface/derrick floor) above sea level is 1129 ft.USE THIS SIDE TO REQUEST AUTHORITY FOR WORK  
(Three copies required.)

Notice of intent to:

- Drill ☐
- Plug (\$15 fee) ☐
- Deepen/plug back ☐
- Convert ☐
- Pull/alter casing ☒
- Formation treatment ☐

## Details of Work

Drilling application will state proposed TD & Horizons to be tested. Show size & length of casings to be used. Plugging application shall set forth reasons for plugging & detailed statement of proposed work. Plugging will not commence for 10 days following approval date unless authority granted.

Well production prior to work 15-20 bbls oil 400 bbls.  
w/24hrs.

## "Emergency Permit"

We have lost pressure integrity in our 18W well - used for water injection and EOR. While the well is shut-in we are losing over 20 BOPD production. Plans are to isolate any holes in the casing - then squeeze (cement) if this not solve the problem, we will run 4 1/2" Flush joint pipe in the well - then cement to surface. See attached well schematic.

I understand this plan of work must receive approval in writing before operations may be commenced.

Lessee: Jireh Resources LLCSignature: [Signature]Title: COO M. Woods  
V.P.Address: P.O. Box 701230City/State/Zip: Tulsa, OK 74117Phone No.: 918-851-0468USE THIS SIDE TO REPORT ON WORK COMPLETED  
(One copy.)Character of well (oil, gas, dry) Miss. Clat. Injection well  
Subsequent report of: OS6320

- Conversion ☐
- Formation treatment ☐
- Alter casing ☒
- Plugging back ☐
- Plugging ☐

## Details of Work &amp; Results Obtained

Well was repaired and MIT was completed and passed 9/6/2016  
SEE attached for details

Work commenced on 8/25/2016Work completed on 9/7/2016

(Continue on reverse side if necessary.)

This block for plugging information only.

## CASING RECORD

SIZE IN HOLE WHEN STARTED AMT. RECOVERED DEPTH (HOW)

ORIGINAL TOTAL DEPTH:

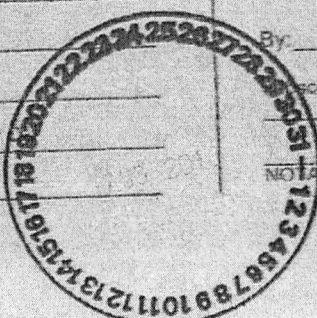
Lessee:

By:

described &amp; sworn to me on the \_\_\_\_\_ day of \_\_\_\_\_

NOTARY PUBLIC

COMM. EXP.



## WELL SCHEMATIC Post Workover

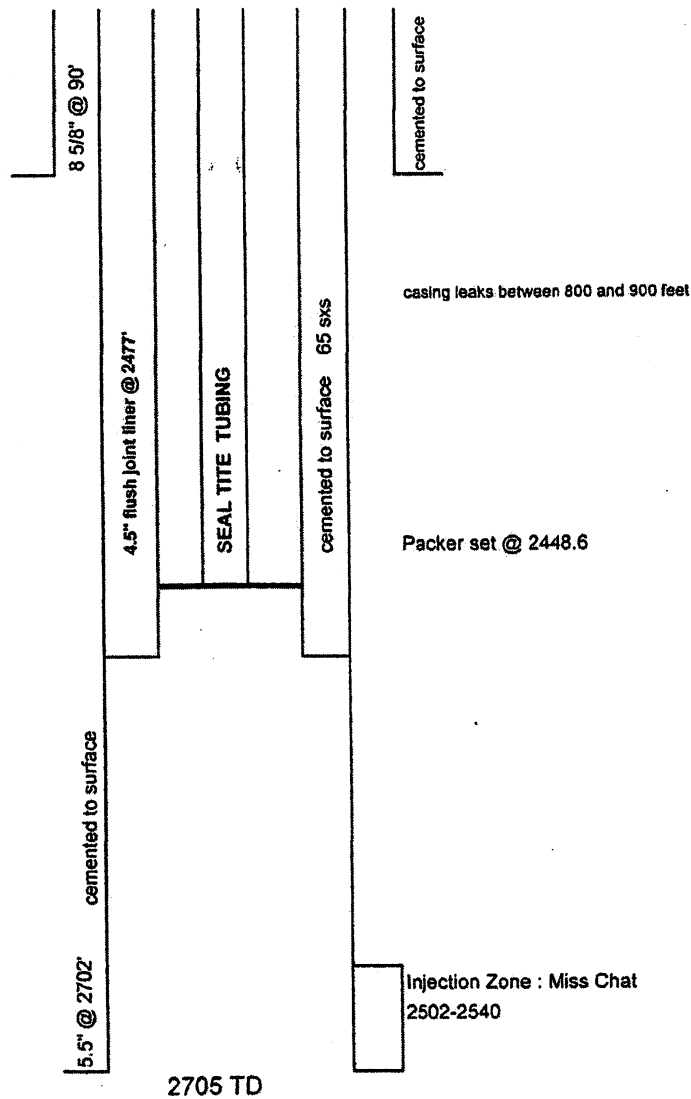
Existing Well:

Blackland - McComb 18W

Initial Completion Date 1/1/2012  
Current Operator: Jireh Resources LLC  
Re-Completion Date: 9/7/2016

SW/4 SEC 1-27N-7E  
OSAGE COUNTY, OK

OS6320 INJECTION WELL

Surface Elevation 1129Tubing Size: seal tite tubingPacker set @ 2448.6

Jireh Resources LLC

9/14/2016

McComb 18W  
SWI well OS6320  
SW/4  
1-27N-7E  
Osage County, OK

Changes in proposed vs actual in red

- 1 Set CIBP at 2492 feet ( perfs at 2502 to 2540), Miss Chat
- 2 Run 4 1/2" flush joint casing inside 5 1/2" production string to 2477 feet (base of float shoe).
- 3 Flush well with fresh water
- 4 Cement to surface - with 65 sacks of regular cement. (Fill-in any fall back)
- 5 Let cement cure for 48 hours
- 6 Drill out wiper plug, float shoe, cement and CIBP
- 7 Acidize perfs with 300 gal 15% HCL if needed (Was not needed took water on vacuum)
- 8 Run in packer and lined tubing. Set packer at 2448.6 feet.
- 9 Test well

Jireh noticed a small leak in the backside of the well during routine well testing. Jireh pulled the tubing and packer and ran in working string with retrievable packer to locate the potential leak. It was determined the leak was between 900 and 800 feet.\* The well was drilled in 2012 and cement was run to surface on both the surface pipe ( @90 feet) and the production string which was set 2702 feet.

\*Holes were determined by moving a retrievable packer up the hole and testing the backside

Started workover 8/25/2016 -- pulling packer and production string  
Cleaned well to TD, set CIBP @ 2492  
Ran and cemented 4 1/2 production string 8/29/2016  
Drilled out wiper plug, ect. And cleaned well to TD 9/2/2016  
Ran in seal tite tubing and packer, 9/5/2016 did internal MIT passed  
Osage UIC performed MIT 9/6/2016, no pressure drop - passed  
Dallas EPA gave written approval to start injection



# GCW Green Country Wireline, Inc.

**INVOICE**

 P.O. BOX 13  
 DEWEY, OK 74029

 STEVE HARTER  
 918-534-2107

**SALES CONTRACT AND FIELD WORK ORDER**

Job No.	Charge To.	Customer Order No.
Date <b>8-25-16</b>	Address	Nearest Town
Operator	City and State	Field
Riggers	Mail Invoices To:	Lease and Well No.
	Address	County
Legal Description-Sec.	City and State	State

In consideration of service work to be performed, the undersigned hereby agrees to the following general terms and conditions of services:

- (1) All accounts are to be paid within the terms fixed by Green Country Wireline, Inc. invoices; past due accounts are subject to a service charge of 1 1/2 % per month. An account is past due when not settled by the first day of the second month, following the month of purchase. In addition, costs and reasonable attorney's fees for collection may be charged.
- (2) Because of the uncertain conditions and hazards existing in a well which are beyond the control of Green Country Wireline, Inc., it is understood by the customer that Green Country Wireline, Inc. cannot guarantee the results of their services and will not be held responsible for personal or property damage in the performance of their services.
- (3) Should any Green Country Wireline, Inc. instruments or equipment be lost or damaged in the performance of the operations requested, the customer agrees to make every reasonable effort to recover same, and to reimburse Green Country Wireline, Inc. for the value of the items which cannot be recovered, or the cost of repairing damage to items recovered, and to notify proper authorities immediately.
- (4) It is further understood and agreed that all depth measurements shall be supervised by the customer of its employees.
- (5) The customer certifies that it has the full right and authority to order such work on such well and that the well in which the work is to be done by Green Country Wireline, Inc. is in proper and suitable condition for the performances of said work.
- (6) The customer agrees to pay any and all taxes, fees and charges placed on services rendered by Green Country Wireline, Inc. by government requirements including city, state and federal taxes and fees or reimburse Green Country Wireline, Inc. for such taxes and fees paid to said agencies.
- (7) No employee is authorized to alter the terms or conditions of this agreement.

 DATE ..... CUSTOMER ..... BY .....  
 PRINT CORRECT NAME ..... Signature of Customer or Authorized Representative

WORK PERFORMED		PRICING	
Ran .....	log:	Set up	\$
From ..... ft. to ..... ft.;	From ..... ft. to ..... ft.	1st ..... Shots	\$
From ..... ft. to ..... ft.;	From ..... ft. to ..... ft.	Next ..... Shots @ \$ ..... Ea.	\$
Set ..... Bridge Plug at ..... ft.		Next ..... Shots @ \$ ..... Ea.	\$
(TYPE)		Next ..... Shots @ \$ ..... Ea.	\$
Perforated with .....	as Follows:	LOGGING:	
From ..... ft. to ..... ft.;	Shots	Depth Charge .....ft. @ \$ .....ft.	\$
		Logging Chg .....ft. @ \$ .....ft.	\$
COMPANY		BRIDGE PLUG:	
WELL # <b>18W m'Comb</b>		Type .....	\$
AFE #		Setting Charge .....	\$
G/L ACCT CODE <b>27600 / 570</b>		Depth Charge .....ft. @ \$ .....ft.	\$
G/L DESCRIPT		Cement Bond Log .....	\$
DATA ENTRY/DATE		OTHER SERVICES	
AUTHORIZED/DATE			
ZERO	CASING SIZE	CASING WT.	CUSTOMER'S T.D.
			GCW T.D.
OPEN HOLE RECORD			FLUID LEVEL
			TYPE FLUID IN HOLE

COMMENTS:

I certify that the above ordered services have been performed to my satisfaction, that all zones perforated were designated by me and all depth measurements checked and approved.

Signed:

Signature of Customer or Authorized Representative

US ENVIRONMENTAL PROTECTION AGENCY  
OSAGE UIC PROGRAM  
100 W. MAIN ST, SUITE 304  
PAWHUSKA, OK 74056

US ENVIRONMENTAL PROTECTION AGENCY  
REGION VI - (6W-SE)  
1445 ROSS AVE  
DALLAS, TEXAS 75202-2733

**NOTICE OF INSPECTION**

Firm Name

*SIREH R.S. LLC*

DATE *9/6/16* HOUR *1:30 PM*

Firm Address

Inspector Name & Title

*Andrew Yates, G. Tech*

Inspector Signature

*[Signature]*

Notice of Inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300 f et seq.)

Reason for Inspection

*MST/PA + WORK-OVER*

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to and applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable permit or rule.

*ME comb #18 W*

*SW1-27-7*

*405-6320*

*on run/cn + 7 412*

*LINE F.5 - 116#*

*PKR @ 2448.6'*

*4" - 5045-0 2772*

*116#*

*220# 110# -7 1800 ml*

*110# 20# -7 1200 ml*

*200 - 12 - 250 ml*

*PKR 12. 3250 ml*

Section 1445(b) of the SDWA (42 U.S.C. §300 j-4 (b) ) is quoted on the reverse of this form

EPA Form

Receipt of this Notice of Inspection is hereby acknowledged.

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Jireh Resources LLC  
2526 East 71<sup>st</sup> Street – Suite A  
Tulsa, Oklahoma 74136  
(918) 895-7870  
(918) 895-7871 Fax

OS6320

November 7, 2011

Mr. Arnold Bierschenk  
United States Environmental Protection Agency  
Region VI (6EN-SG)  
1445 Ross Avenue  
Dallas, Texas 75020-2733

Re: Emergency Permit for :  
Blackland 18W  
SW/4 Section 1-T27N-R7E  
330 FSL – 1650 FWL  
Osage County, Oklahoma

Dear Sir or Madame:

Please find enclosed the Permit for the Blackland 18W, we are asking for an Emergency Permit to dispose our water into. This lease has a lot of TA/producer and we cannot put them on production until we get this disposal well. This well has not been drilled yet and we are waiting for the Bureau of Indian Affairs permission to drill this disposal well. The permit that we have turned in is just estimations of the work that will be done, when drilling this well. The BIA should be sending out the approval to drill this well in the next few days. Wandering Star Partner's bond is attached as owner and Jireh Resources LLC in Tulsa is operator at this time and the mail should be sent to our Tulsa Office.

When the well is drilled we will submit the proper paper work to your office. If you have any questions please call Lanny Woods at (918) 895-7870 or his cell # (918) 851-0468.

Sincerely,

*Norma Standridge*  
Norma Standridge  
Agent

*McCumb's Lease*

## DEPARTMENT OF THE INTERIOR

Osage Indian Agency  
PAWHUSKA, OK 74056

## APPLICATION FOR OPERATION OR REPORT ON WELLS

Date: 10-31-11Oklahoma Land & Cattle9-2011\$6500.00

(Commencement money paid to whom)

(Date)

(Amount)

Well No. 18W is located 330 ft. from (N/S) line and 1650 ft. from (E/W) line.SW/4 Sec. 127N7E

Osage County, Oklahoma.

(1/4 Section &amp; No.)

(Township)

(Range)

The elevation of the (surface/derrick floor) above sea level is: 1122 ft.USE THIS SIDE TO REQUEST AUTHORITY FOR WORK  
(Three copies required.)

## Notice of intent to:

- Drill ☒
- Plug (\$15 fee) ☐
- Deepen/plug back ☐
- Convert ☐
- Pull/alter casing ☐
- Formation treatment ☐

**Details of Work**

**Drilling** application will state proposed TD & Horizons to be tested. Show size & length of casings to be used. **Plugging** application shall set forth reasons for plugging & detailed statement of proposed work. Plugging will not commence for 10 days following approval date unless authority granted.

Well production prior to work. \_\_\_\_\_ bbls oil \_\_\_\_\_ bbls. wtr./24hrs.

*We request approval to drill a 2700' injection well in the "Blackland Unit" on the McCumb lease. The TD of the well will be in the Mississippi. The water injection will be in the Mississippi Chert formation. This well is needed to replace the 14W injection well.*

I understand this plan of work must receive approval in writing before operations may be commenced.

Lessee: Jireh Resources, LLCSignature: Lanny Woods *LW*Title: Executive Vice PresidentAddress: 2526 E. 71<sup>st</sup> St. - Ste ACity/State/Zip: Tulsa, Oklahoma 74136Phone: 918-851-0468USE THIS SIDE TO REPORT ON WORK COMPLETED  
(One copy.)

Character of well (oil, gas, dry) \_\_\_\_\_

Subsequent report of:

- Conversion ☐
- Formation treatment ☐
- Alter casing ☐
- Plugging back ☐
- Plugging ☐

**Details of Work & Results Obtained**

Work commenced on \_\_\_\_\_

Work completed on \_\_\_\_\_

(Continue on reverse side if necessary.)

**This block for plugging information only.****CASING RECORD**

SIZE	IN HOLE WHEN STARTED	AMT. RECOVERED	DEPTH / HOW

**ORIGINAL TOTAL DEPTH:** \_\_\_\_\_

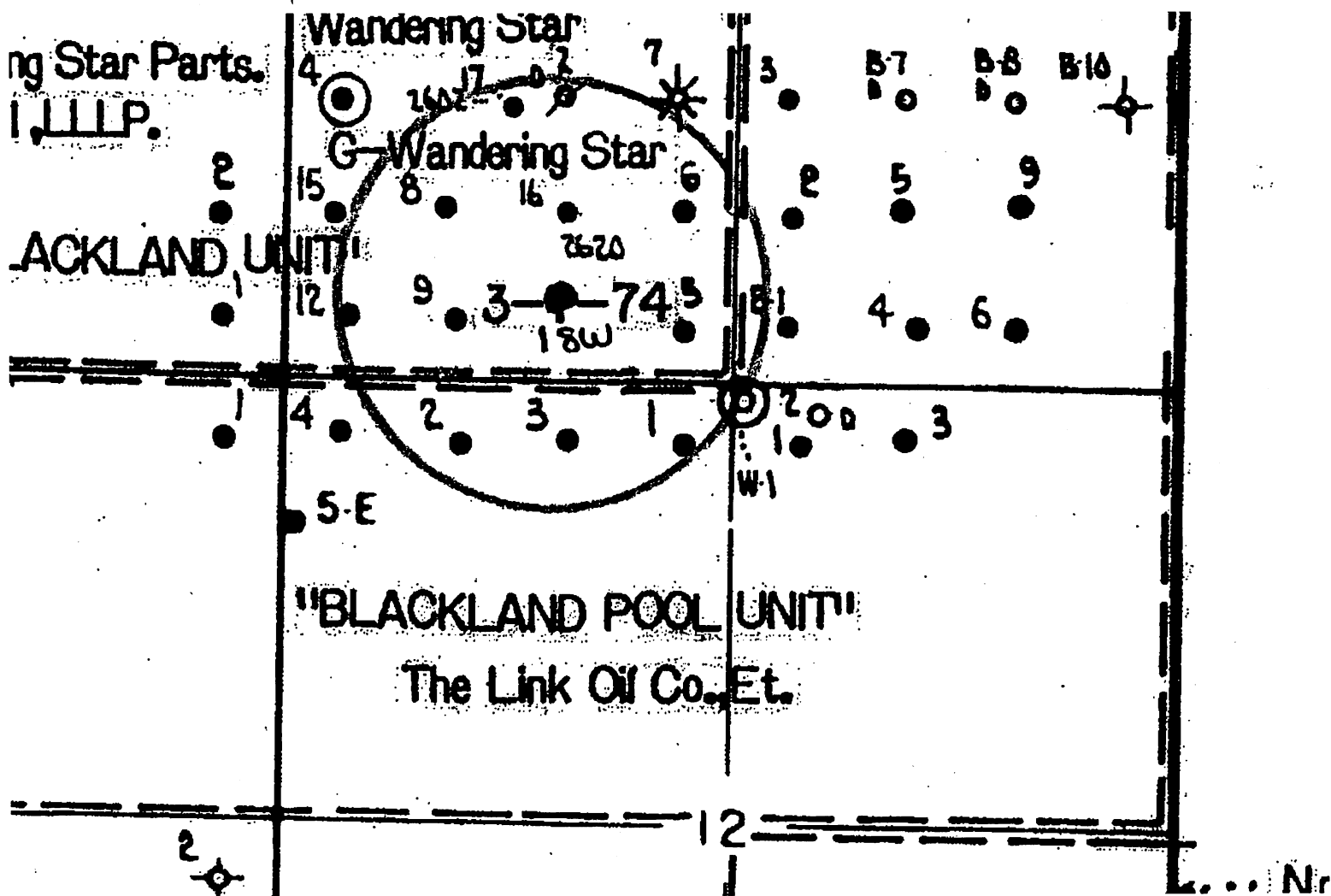
Lessee: \_\_\_\_\_

By: \_\_\_\_\_

Subscribed &amp; sworn to me on the \_\_\_\_\_ day of \_\_\_\_\_

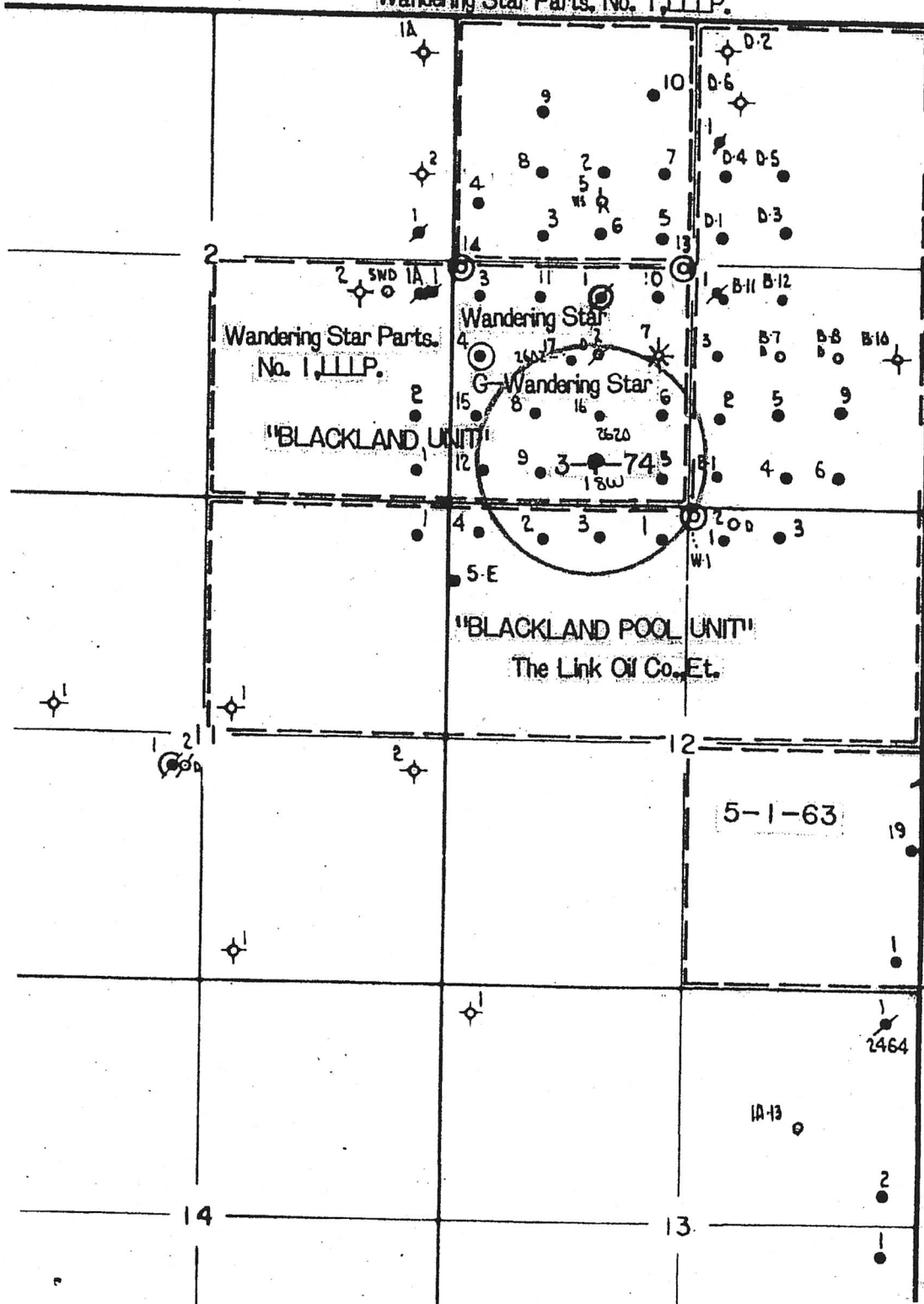
NOTARY PUBLIC

COMM. EXP. \_\_\_\_\_



SW1-27-7

"BLACKLAND POOL UNIT"  
Wandering Star Parts, No. 1, L.L.P.



RE

\* ENE

E/  
W

\*

Novy O&G, Inc., Et.

5-1-63

OSAGE B UNIT

2464

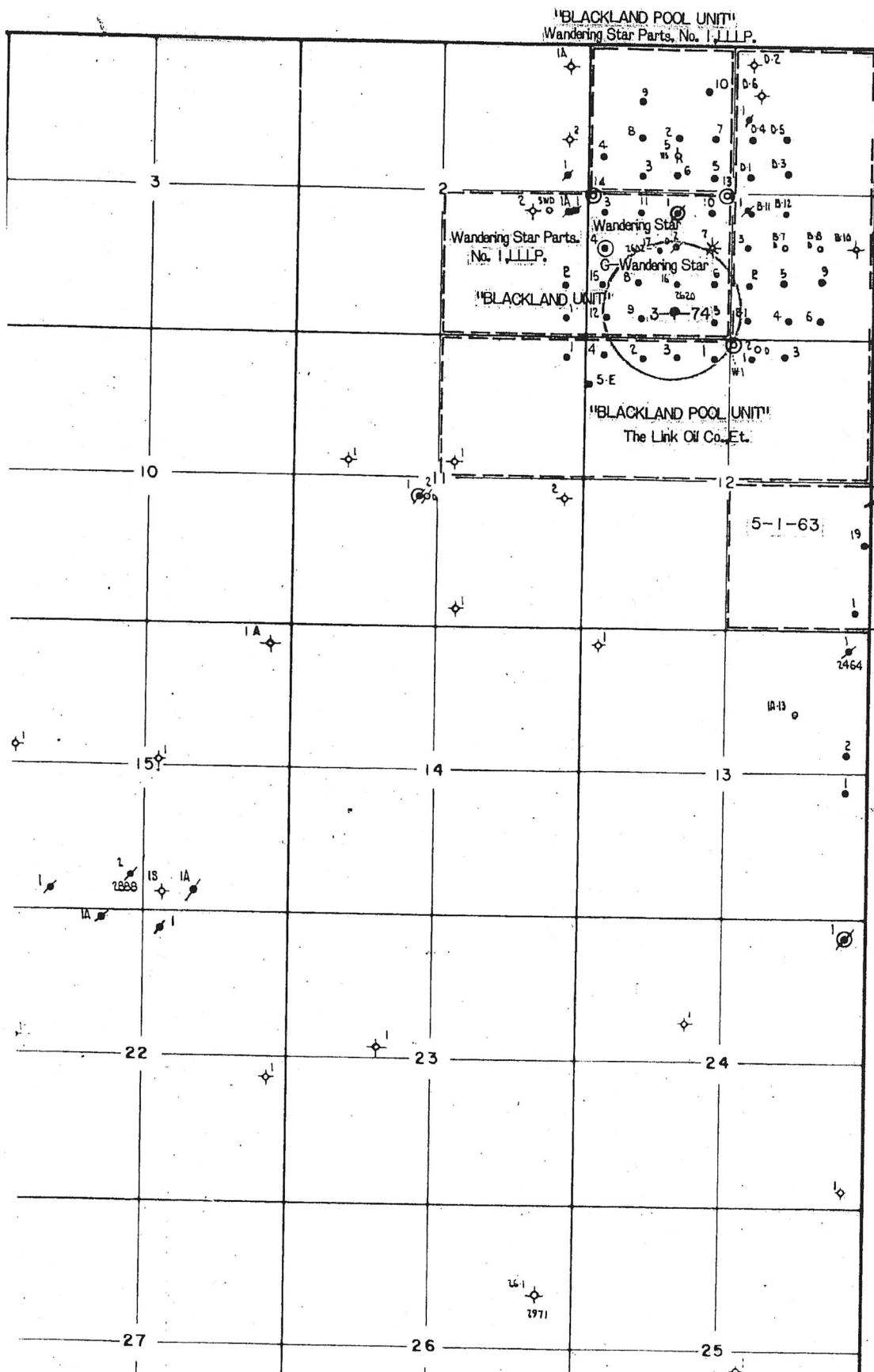
1A-13

14

13

7 E

No wells  
penetrate top  
of injector  
zone.



## REMARKS

\* ENFISCO GAS ST

E/2 SE SW, OS

W/2 SEC 36, T

\* ENFISCO GAS AI

E/2 SE SW, SE

W/2 Sec.

Novy O&amp;G, Inc., Et.

OSAGE B. UNIT

T

27

N

TABULATIONS OF WELLS WITHIN 1/4 MILE RADIUS OF PROPOSED INJECTION WELL

Well Name 17 Company Name Jireh Resources Date Drilled 6/21/91 Depth 2602  
 Location 1075 F N L & 1325 F W L, SW 1/4, Sec. 1, T 27 N, R 7 E Status producer - Active  
 Elevation 1169 (GL)(KB) API 3511340540

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	8 5/8"	797	450 SXS		
	5 1/2"	2600	235 SXS	OK	Surf
					Surf

Formations open to wellbore: Mississippi Chat

\*\*\*\*\*  
 \*

Well Name 2 Company Name Texas Company Date Drilled 8/4/37 Depth 2557  
 Location 990 F N L & 990 F E L, SW 1/4, Sec. 1, T 27 N, R 7 E Status PA  
 Elevation 1177 (GL)(KB) API 3511334131

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	15"	240'			
	12"	740'			
	10"	1515'	OK		see attached
	8"	1677'			
	6"	2477'			

Formations open to wellbore: Mississippi Chat, Big Lime

\*\*\*\*\*  
 \*

Well Name 8 Company Name Jireh Resources Date Drilled 7/26/57 Depth 2500  
 Location 990 F S L & 990 F W L, SW 1/4, Sec. 1, T 27 N, R 1 E Status producer - Active  
 Elevation 1159 (GL)(KB) API 3511309367

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	10 3/4"	280'	200 Sacks		
	7"	2490'	200 Sacks	OK	Surf
					Surf

Formations open to wellbore: Mississippi Chat

Oil Plugging Report

Osage Form No. 139 (1972)

MAY 10 1988  
UNITED STATES

## DEPARTMENT OF THE INTERIOR

OSAGE INDIAN AGENCY

PAWHUSKA, OKLAHOMA 74056

G. McComb #2

Date 5/9/88

RECEIVED

## APPLICATION FOR OPERATION OR REPORT ON WELLS

MAY 11 1988

(Commencement money paid to whom) (Date) (Amount)  
 OSAGE AGENCY SUPERINTENDENT  
 Well No. 2 is located 1650 ft. from {N} line and 1650 ft. from {E} line.  
 SW NE SW Sec. 1 27N 7E Osage County, Oklahoma.  
 (1/4 Sec. & Sec. No.) (Twp.) (Range)

The elevation of the {surface} above sea level is 1176 ft.  
 {XXXXXXXXXX}  
 {driveway floor}

USE THIS SIDE TO REQUEST AUTHORITY FOR WORK  
(three copies required)

## Notice of intention to:

- Drill ☐  
 Plug ☐  
 Deepen or plug back ☐  
 Convert ☐  
 Pull or alter casing ☐  
 Formation treatment ☐

## Details of Work

Drilling applications will state proposed TD & Horizons to be tested. Show size & length of casings to be used. Indicate proposed mudlogging, cementing & other work.

Plugging applications shall set forth reasons for plugging & detailed statement of proposed work. Plugging will not commence until 10 days following approval date unless authority granted for earlier commencement.

## Well production prior to work

Amount of cement used  
 bbls. oil 124 hrs.  
 Company DD Aed  
 Inspector AL  
 Date 6-6-88

102' jet cutter < \* 8-1/4" 1675' 689'  
 7" 2474' 504'

I understand that this plan of work must receive approval in writing of the Osage Indian Agency before operations may be commenced.

Lessee:

Signature:

Title:

Address:

Approved:

Osage Agency Inspector

USE THIS SIDE TO REPORT COMPLETED WORK  
(one copy required)

Character of well (whether oil, gas or dry) Inj.

## Subsequent report of:

- Conversion ☐  
 Formation treatment ☐  
 Altering casing ☐  
 Plugging back ☐  
 Plugging ☒

## Details of Work &amp; Results Obtained

- Set CIBP @ 2394'.
- Pump 50 sx cmt - cmt fillup to 2092'.
- Attempted to cut off casing @ 902'.
- Pull 25 jts - 504' of 7" casing & 689' - 34 jts of 8-1/4" casing.
- Fill with mud from 2092' to 740'.
- Perforate 10" @ 725', pump 329 sx cmt.
- Pump 801 sx cmt down annulus between 10", 13" and 15-1/2". Weld plate & level location.

Work commenced 2/9 19 88

Work completed 2/22 19 88

This block for plugging information only  
CASING RECORD

Size	In hole when started	Amount recovered	If parted	
			Depth	How
15-1/2	230'	0		
13	740'	0		
10	1516'	0 *		

ORIGINAL TOTAL DEPTH 3372'

Lessee Texaco Inc.

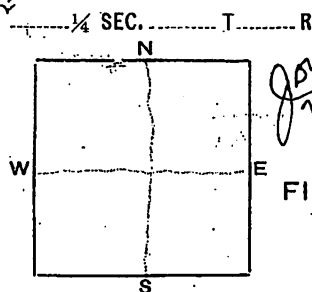
By J. K. Hamby Signature Dist. Comm. Engr.

Subscribed and sworn to before me

this 9th day of May 1988

Notary Public

My commission expires July 21, 1991

JON  
0-123

5-425a

25514

MISCELLANEOUS  
RECEIVED

JUL 29 1937

23726  
OSAGE AGENCY

DEPARTMENT OF THE INTERIOR  
OFFICE OF INDIAN AFFAIRS  
FINAL REPORT OF COMPLETED OR DEEPEINED WELLS  
FOR LANDS COVERED BY DEPARTMENTAL LEASES

SPECIFY OIL, GAS, OR DRY

This report must be filed within Ten Days after well is shut or producing natural.  
Use this form for Supplemental Report on Wells plugged back.

COMPANY OPERATING The Texas Company ADDRESS P.O. Box 2420, Tulsa, Okla.

LESSEE The Texas Company LESSOR Gladys McComb

WELL No. 2 SW 1/4 SEC. 1 T. 27N R. 7E COUNTY

from N. line

from E. line

Well located 990' Ft. N.-S. of and 990' Ft. E.-W. of Elevation (Derrick floor, relative to sea level.)

Well drilled by Clemishire &amp; Hane

Superintendent Mr. Stanley Donnelly

Date commenced drilling May 17, 1937

, 19 Finished July 18, 1937 , 19

Date commenced deepening

, 19 Finished , 19

CASING USED IN DRILLING				CASING LEFT IN HOLE		SHOE		PACKERS		
Length	Size	Wt. per ft.	Thread	Length	Landed at	Length	Make	Kind	Length	Set at
250	Fl. 15 1/2	Ins. 70	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.
314	Fl. 12 1/2	Ins. 50	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.
426	Fl. 13	Ins. 40	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.
1516	Fl. 10	Ins. 40	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.
1675	Fl. 8 1/2	Ins. 32	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.
6474	Fl. 6-5/8	Ins. 24	Lbs. Per in.	Fl.	Fl.	Fl.			Fl.	Fl.

What was done to protect sands when outside casing was pulled?

Combination

Is water completely shut off? Amount water with oil per cent. Is oil cut

Oil—Initial 24-hr. production, 68 bbls. Initial 24-hr. production after shot bbls. Shot from to , size qts.

Tubing

Gas—Initial open flow sand from ft. to ft.

Cu. ft. rock pressure lbs. per sq. in.

Initial open flow sand from ft. to ft.

Cu. ft. rock pressure lbs. per sq. in.

Dry Hole—State what steps have been taken to plug.

Location fee paid Chapman &amp; Barnard

Date Apr. 24, 1937

Amount, \$ 35

(Sign here)

6-4339

Your position with the lessee Ass't. Div. Manager

# L SW 1-27-7

No. 2

lime-sand	1775	30	light	soft
sandy shale	1810	35	light	soft
shale	1900	90	blue	soft
shale	1915	15	black	soft
lime	1925	10	gray	hard
shale	1945	20	blue	soft
lime	1950	5	gray	med.
shale	1955	5	gray	soft
lime	1980	25	gray	hard
shale	2050	70	light	soft
lime	2055	5	white	hard
broken lime-sand	2070	15	gray	soft
gas sand	2082	12	white	hard
broken lime	2095	13	gray	med.
sandy shale	2130	35	light	soft
sand-gas	2160	30	white	hard
shale	2175	15	light	soft
lime	2197	22	brown	hard
lime	2230	33	white	hard
shale	2235	5	blue	soft
lime	2260	25	white	hard
shale	2270	10	black	soft
lime	2277	7	dark	hard
shale	2295	18	dark	soft
lime	2310	15	white	hard
shale	2470	160	blue	soft
lime	2474	4	white	hard
Chat	2540	66	light	hard
Chat	2557	17	light	hard

691-3

25516

TABULATIONS OF WELLS WITHIN 1/4 MILE RADIUS OF PROPOSED INJECTION WELL

Well Name 16 Company Name Jireh Resources Date Drilled 7/5/90 Depth 2628  
 Location 990 F S L & 990 F E L, SW 1/4, Sec. 1, T 27 N, R 7 E Status producer - Active  
 Elevation 1158 (GL KB) API - 3511340375

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	8 5/8"	779'	390 sacks		
	5 1/2"	2626'	200 sacks OK	Surf Surf	

Formations open to wellbore: Mississippi Chat

\*\*\*\*\*

\*

Well Name 6 Company Name Jireh Resources Date Drilled 12/4/53 Depth 2509  
 Location 990 F S L & 2310 F W L, SW 1/4, Sec. 1, T 27 N, R 7 E Status Shut-in  
 Elevation 1130 (GL KB) API 3511309366

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	10 3/4"	239'	250 sacks		
	7"	2497'	200 sacks OK	Surf Surf	

Formations open to wellbore: Big Lime, OSWEGO, Mississippi

\*\*\*\*\*

\*

Well Name 9 Company Name Jireh Resources Date Drilled 4/15/59 Depth 2560  
 Location 330 F S L & 990 F W L, SW 1/4, Sec. 1, T 27 N, R 7 E Status producer - Active  
 Elevation 1151 (GL KB) API 3511309368

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	8 5/8"	82'	80 sacks		
	5 1/2"	2552'	325 sacks OK	Surf Surf	

Formations open to wellbore: BURGESS, Mississippi Chat

TABULATIONS OF WELLS WITHIN 1/4 MILE RADIUS OF PROPOSED INJECTION WELL

Well Name .5 Company Name Sireh Resources Date Drilled 10/7/53 Depth 2510  
 Location 330 F S L & 330 F E L, SW 1/4, Sec. 1, T 27 N, R 7 E Status producer - Active  
 Elevation 1130 (GL KB) API 3511334132

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	10"	285'	185 sacks	Surf	
	7"	2509'	200 sacks OK	Surf	

Formations open to wellbore: Mississippi Chat

\*\*\*\*\*

\*  
 Well Name E-2 Company Name Link Oil Date Drilled 9/17/58 Depth 2527  
 Location 305 F N L & 990 F W L, NW 1/4, Sec. 12, T 27 N, R 7 E Status producer - Active  
 Elevation 1130 (GL KB) API 3511334166

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	8 5/8"	60'	50 sacks	Surf	
	5 1/2"	2517'	75 sacks OK	Surf	

Formations open to wellbore: Mississippi Chat

\*\*\*\*\*

\*  
 Well Name E-3 Company Name Link Oil Date Drilled 7/8/59 Depth 2512  
 Location 305 F N L & 4650 F W L, NW 1/4, Sec. 12, T 27 N, R 7 E Status producer - Active  
 Elevation 1115 (GL KB) API 3511334167

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	5 1/2"	2497'	75 sacks OK	Surf	

Formations open to wellbore: Mississippi Chat

TABULATIONS OF WELLS WITHIN 1/4 MILE RADIUS OF PROPOSED INJECTION WELL

Well Name I-B Company Name Link Oil Date Drilled 10/21/53 Depth 2496  
 Location 330 F S L & 330 F W L, SE 1/4, Sec. 1, T 27 N, R 7 E Status producer - Active  
 Elevation 1111 (GL/KB) API 3511334134

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	10"	97'	100 Sacks	Surf	
	5"	2496'	100 Sacks OK	Surf	

Formations open to wellbore: Mississippi Chat

\*\*\*\*\*

\*  
 Well Name I-E Company Name K-M Oil Company Date Drilled 1-1-59 Depth 2555  
 Location 2310 F S L & 2310 F W L, NW 1/4, Sec. 12, T 27 N, R 7 E Status TA - producer  
 Elevation 1131 (GL/KB)

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:
	10 3/4	280	200 SX reg cmt	Surf	
	7	2545	200 SX cmt OK	Surf	

Formations open to wellbore: Miss Chat

\*\*\*\*\*

\*  
 Well Name \_\_\_\_\_ Company Name \_\_\_\_\_ Date Drilled \_\_\_\_\_ Depth \_\_\_\_\_  
 Location \_\_\_\_\_ F \_\_\_\_\_ L & \_\_\_\_\_ F \_\_\_\_\_ L, \_\_\_\_\_ /4, Sec. \_\_\_\_\_, T \_\_\_\_\_ N, R \_\_\_\_\_ E Status \_\_\_\_\_  
 Elevation \_\_\_\_\_ (GL/KB)

Hole Size (inches)	Casing Size (inches)	Landed Depth (feet)	Cement & Additives Data	Top of Cement (feet)	If well is TA or PA Describe How:

Formations open to wellbore: \_\_\_\_\_

## WELL SCHEMATIC

Operator: Sure Resources  
 Completion Date: \_\_\_\_\_

Well Name & No.: McComb 18W  
330 ft. 15/8 line and 1650 ft. from W  
SW 1/4 Section 1 Township 27N Range 7E

Surface Elevation: \_\_\_\_\_

Tubing Size: 2 7/8  
 Weight: \_\_\_\_\_  
 Length: 2645

Packer Type: Tension  
 Set at: 2645  
2575 - 2645 ✓

Formation(s) perforated below  
 packer: 2650 to 2720  
 \_\_\_\_\_ to \_\_\_\_\_

Open hole below production  
 Casing from \_\_\_\_\_ to \_\_\_\_\_  
 Formation(s) present in open  
 hole: \_\_\_\_\_

## SURFACE CASING DATA

Hole size: 12 1/4 inches  
 Casing size: 8 5/8 inches  
 Weight: 24 lb/ft.  
 Length: 45 ft.  
 Cement type: Class neg cement  
 Amount: 12 sx.  
 Additives: \_\_\_\_\_  
 Casing set at: 45 ft.  
 Top of cement: Surf ft.  
 Method of  
 determination Circulation

Packer set @ 2645

Perfs: 2650-2720

Surf cs8  
 Set at 45'  
 w/ 12 1/4" x 24" cement

Tubing set @ 2645

## INTERMEDIATE LINER/CASING

Hole size: \_\_\_\_\_ inches  
 Casing size: \_\_\_\_\_ inches  
 Weight: \_\_\_\_\_ lb/ft.  
 Length: \_\_\_\_\_ ft.  
 Cement type: Class \_\_\_\_\_  
 Amount: \_\_\_\_\_ sx.  
 Additives: \_\_\_\_\_  
 Casing set at: \_\_\_\_\_ ft.  
 Top of cement: \_\_\_\_\_ ft.  
 Method of  
 determination \_\_\_\_\_

## PRODUCTION CASING DATA

Hole size: 6 3/4 inches  
 Casing size: 5 1/2 inches  
 Weight: 14 lb/ft.  
 Length: 2740 ft.  
 Cement type: Class 5% po mix  
 Amount: 300 sx. 330X, 11.97  
 Additives: \_\_\_\_\_  
 Casing set at: 2740 ft.  
 Top of cement: Surf ft. 3950'  
 Method of  
 determination Circulation

5 1/2" Set @ 2740 w/ 300 sx. cement

PBTD: \_\_\_\_\_  
 TD: 2750

NOTE: All depths are to be  
 from ground level. If KB  
 depths are used, make  
 notations on diagram and  
 height of KB above ground  
level.

TD: 2750

U5DW-622  
 056213

05 6278  
 - 750'

100 psi  
 45,000 B/M

**WELL OPERATION & GEOLOGICAL DATA**

Permit Number \_\_\_\_\_

(for Osage UIC use only)

Type of Injection Well: SWD(EOR/SWD/HC Storage)

(New) Conversion / Authorized By Rule)

**Injection:**Rate (B/D): Average 1000 Maximum 1500Fluid: Tds \_\_\_\_\_ sp. Gr. \_\_\_\_\_ Analyses Included: (Yes No)Source (Formation name): Miss ChatWill anything be added to the water to be injected? (Yes / No)

What will those additives be? \_\_\_\_\_

45,000 \$/M

**Geologic Data:***All references to depths are below land surface.*Injection Intervals: 2650 to 2720 ; \_\_\_\_\_ to \_\_\_\_\_Formation Name Miss Chat Lithology sandstone Porosity (%) 24Permeability (md) \_\_\_\_\_ Total formation thickness 130Perforated or open hole interval perforated 2650-2720

Formation Name \_\_\_\_\_ Lithology \_\_\_\_\_ Porosity (%) \_\_\_\_\_

Permeability (md) \_\_\_\_\_ Total formation thickness \_\_\_\_\_

Perforated or open hole interval \_\_\_\_\_

Current Fluid Level in Well \_\_\_\_\_ ft. (below land surface) and / or

Current Reservoir Pressure \_\_\_\_\_ Date \_\_\_\_\_

Drill Stem Test (Yes No) If yes, attach copy.Depth of nearest fresh water well(s) none ft.**Facilities Associated with Injection Well:**Adequate Berm around tank battery? (Yes / No)Leaking Flow Lines? (Yes / No)**Formation:**

Top/Bottom From PBTD to Surface.

<u>Big Lime</u>	<u>2042 / 2048</u>
<u>Osage</u>	<u>2170 / 2250</u>
<u>Pink Lime</u>	<u>2405 / 2410</u>
<u>Miss Chat</u>	<u>2470 / 2522</u>
_____	<u>/</u>

**APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION**  
**(§147.2918 (b) (s) and §147.2929 (d) (ii))**

Sureh Resources LLC is applying for a permit for a Class II  
(Operator Name)  
injection well. Well No. McComb 18W is located 330 ft. from ~~N~~ S line and  
1650 ft. from ~~E~~ W line. SW/4 (1/4 Sec. & Sec. No.) 1 (Twp.) 24N (Rge.) 7E  
The well will be used to inject saltwater into the Miss Chat  
(Fluid Type) (Formation Name)  
for (disposal/enhanced recovery). The well operator's address is  
2526 E. 71st - Ste A Tulsa, OK 74136  
(Street/P.O. Box/City/State/Zip Code)

EPA may prepare a draft permit or a notice of intent to deny this application. Following the preparation of a draft permit or intent to deny, there will be an opportunity for public comments. For further information concerning the status of this application, please contact:

**Osage UIC Office**  
**P. O. Box 1495**  
**Pawhuska, Oklahoma 74056**  
**Phone: (918) 287-5333**

Notice Sent To: (Surface Owner/Tenant/Operator) Circle one

The Link Oil Company  
Name  
424 S. Boston - Ste 1000  
Address  
Tulsa, OK 74103  
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR §147.2918.

Lanny Woods  
(Owner/Operator Signature)

11-7-11  
(Date of Notice)

**APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION**  
**(§147.2918 (b) (s) and §147.2929 (d) (ii))**

Siron Resources, LLC is applying for a permit for a Class II  
(Operator Name)  
injection well. Well No. McComb 18W is located 330 ft. from ~~SE~~ S line and  
1650 ft. from ~~E~~ W line. SW/4 1 27N 7E  
(1/4 Sec. & Sec. No.) (Twp.) (Rge.)  
The well will be used to inject saltwater into the Miss Chat  
(Fluid Type) (Formation Name)  
for (disposal/enhanced recovery). The well operator's address is  
2526 E. 41st St. A Tulsa OK 74136  
(Street/P.O. Box/City/State/Zip Code)

EPA may prepare a draft permit or a notice of intent to deny this application. Following the preparation of a draft permit or intent to deny, there will be an opportunity for public comments. For further information concerning the status of this application, please contact:

**Osage UIC Office**  
**P. O. Box 1495**  
**Pawhuska, Oklahoma 74056**  
**Phone: (918) 287-5333**

Notice Sent To: (Surface Owner)/Tenant/Operator) Circle one

Osage Land & Cattle Co. Attn: Chris Becker  
Name  
1900 Dal Rock Road  
Address  
Round Bay TX 75088  
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR §147.2918.

Lanny Woods  
(Owner/Operator Signature)

11-7-11  
(Date of Notice)

**CERTIFICATION**

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibilities of fine and imprisonment.

Lanny Woods  
Name

Executive Vice President  
Title

***\*If certification is signed by a party other than the injection well owner/operator a written statement of authorization signed by the owner/operator must accompany the application.***

COPY

Escrow Bank: OSAGE FEDERAL BANKBank Address: PO BOX 26 - PAWUSKA, OK 74056Date: 09-26-05

WE, THE UNDERSIGNED WANDERING STAR PARTNERS #1 LLP, and the SUPERINTENDENT, OSAGE AGENCY, BUREAU OF INDIAN AFFAIRS (The "Superintendent") hereby deposit with OSAGE FEDERAL BANK ("escrow bank") the following monies to-wit:

FIFTY THOUSAND AND NO/100 DOLLARS (\$50,000)

Which shall be held by the said bank in escrow under the following instruction, to-wit:

- (a) The account shall be designated as the OSAGE FEDERAL BANK - Osage Account # 0110055640. Said certificate of deposit shall be purchased and owned by WANDERING STAR PARTNERS #1 LLP subject to conditions set forth below;
- (b) The Escrow Funds will be invested in 6 MONTHS certificates of deposit and shall be automatically reinvested at then existing interest rates until the Escrow Agreement is terminated;
- (c) The superintendent may draft upon the Escrow funds upon the submission to the Escrow Agency of a sworn affidavit by the Superintendent stating that (i) WANDERING STAR PARTNERS #1 LLP default with regard to its obligations under Department of Interior regulations governing oil &/or gas leases covering lands located within Osage County, Oklahoma and (ii) the Superintendent has given WANDERING STAR PARTNERS #1 LLP thirty (30) days notice of such default (including a specific description of the default) and the opportunity to cure same within said thirty (30) day period; unless said default is the subject of litigation in which case said funds shall remain in escrow;
- (d) Any funds remaining in the Escrow Account on the termination date (as defined below) will be distributed to WANDERING STAR PARTNERS #1 LLP;
- (e) All accrued interest shall be credited to WANDERING STAR PARTNERS #1 LLP and not added to the certificate of deposit;

Subject, however, to the following terms, exceptions, provision and conditions.

1. The escrow bank shall be liable as a depository only and shall not be responsible for the sufficiency or accuracy of the form, execution or validity of documents deposited hereunder, or any description of property or other things therein, nor shall it be liable in any respect on account of the identity, authority, or rights of the persons executing or delivering or purporting to execute or deliver any such document or paper.

2. The escrow bank, as part of the consideration for the acceptance of this escrow, shall not be liable for any acts or omissions done in good faith, nor for any claims, demands or losses, nor for any damages made and suffered by any party to this escrow, excepting such as may arise through or be caused by its willful or gross negligence.

3. The escrow bank shall not be liable for collection items until the proceeds of the same in actual cash have been received, and in making collections of items deposited hereunder, the parties hereto agree that the escrow bank may collect the same under the procedures customarily employed by it in handling other collections, nor shall it be liable for the default in payment of any installment of principal or interest nor shall it be liable for failure to demand payment of any instrument, present the same for payment or protest the same or given notice of protest of nonpayment thereof, nor the outlawing of any rights under the Statute of Limitations in respect to any document deposited; nor for interest on any deposit of money. It may rely upon any paper, document, or other writing believed by it to be authentic in making any delivery of money or property hereunder. The escrow bank shall in no way be responsible nor shall it be its duty to notify any party hereto or party interested in this escrow deposit of any payment or maturity, under the terms of any instrument deposited herewith.

4. It is agreed that this escrow contract shall not be terminated until the Superintendent authorizes such termination in writing or Bank gives 30 days written notice of its desire to cease serving as escrow agent.
5. It is further understood and agreed between the parties that these instruments supersede any other contract with reference to this escrow deposit, insofar as said escrow bank is concerned, and that the said bank may rely absolutely hereon to the exclusion of any and all other agreements between the parties hereto.
6. This Agreement shall be binding on the successors and assigns of the parties hereto.
7. This Agreement may be amended by written instrument executed by all parties.
8. WANDERING STAR PARTNERS #1 LLP may assign its interest in the Escrow Account subject to the approval of the Superintendent and the escrow bank.
9. The escrow bank shall provide WANDERING STAR PARTNERS #1 LLP and the Superintendent with semi-annual statements reflecting the balances and activity of the Escrow Account.
10. The escrow bank shall be paid an escrow fee of \$ - 0 - for each certificate so issued.
11. This certificate of deposit shall be subject to all normal banking rules and regulations including Regulation Q.

## PARTIES TO ESCROW CONTRACT

CARIS MASTER WANDERING STAR PARTNERS #1 LLP  
(PRINTED NAME OF COMPANY OR INDIVIDUAL)

\_\_\_\_\_  
(SIGNATURE OF COMPANY AGENT OR INDIVIDUAL)

APPROVED:

SEP 29 2005

Under the authority delegated by 209 DM 8,  
230 DM 1, 3 IAM 4.1 and Muskogee Area  
Addendum 9901 to 3 IAM 4 issued June 22, 1999

/s/ LARRAINE WILCOX

ACTING

SUPERINTENDENT, OSAGE AGENCY  
BUREAU OF INDIAN AFFAIRS

## ACCEPTED:

Osage Federal Bank 918-287-2919  
Bank Telephone No.

P.O. Box 26 - Pawhuska, OK. 74056  
Address of Bank

Cynthia Laird - Manager Savings  
BY: Signature and Title of Bank Officer

## RECEIPT AND RELEASE

All monies, documents and papers relative to this escrow deposit have been received to our entire satisfaction this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, and the escrow bank herein relieved from all further liability or responsibility with reference thereto.

Date: \_\_\_\_\_

050922  
6222  
(06)

## FORM F

Approved by the Secretary of the Interior  
March 20, 1952

CONTRACT NUMBER

I-68-IND-333

## OSAGE MINING LEASES

(Must be executed in duplicate).

Assignment of Oil Mining Lease

WHEREAS, The Secretary of the Interior has heretofore approved oil mining lease, dated May 29, 1920 Entered into by and between Coffey Gillespie Oil Co.

lessee, and the  
Osage Tribe of Indians, lessor, covering the following described land in the Osage Reservation, State of Oklahoma:  
NW1/4 of Section 1, Township 27 North, Range 7 East  
Osage County, Oklahoma

Now, therefore, for and in consideration of (\$ 10.00 ), dollars the receipt of which is hereby acknowledged,  
Wandering Star Partners, No. 1, L.L.P., successor in interest to Coffey Gillespie Oil Co.,  
the lessee in the above described lease, hereby bargains, sells, transfers, assigns and conveys all of its

right, title and interest of the lessee in and to said lease, subject to the approval of the Secretary of the Interior, to:

Star Resources, LLC an Oklahoma Limited Liability Company  
Star  
2526 East 71st St., Suite A

Tulsa, Oklahoma 74136

In Witness whereof the said lessee has hereunto set its hand this 15th day of July 20 11.

ATTEST:

Secretary  
(SEAL)

Wandering Star Partners, No. 1, L.L.P.,

By: [Signature]

Manager of its General Partner, Mariah Exploration LLC

## ACKNOWLEDGEMENT OF INDIVIDUAL

STATE OF OKLAHOMA COUNTY OF WASHINGTON SS:

Before me, a Notary Public, in and for said County and State on this 15th day of July 20 11

personally appeared Chris Mauter

to me known to be the identical person who executed the within and foregoing and annexed instrument for the consideration and purposes therein mentioned and set forth, and I do hereby so certify.

My commission expires 7/16/13

[Signature]  
Notary Public



## ACKNOWLEDGEMENT OF CORPORATION

STATE OF OKLAHOMA COUNTY OF WASHINGTON SS:

On this 15th day of July A.D. 2011 before me, a Notary Public within and for the State

and County aforesaid, personally appeared Chris Mauter and

Star Resources, LLC to me personally known who, being by me duly sworn did each say that

Chris Mauter is the secretary and president and

Star Resources, LLC is the secretary of Star Resources, LLC

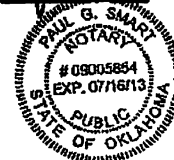
a corporation, and that the seal affixed to the foregoing and annexed instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its board

of directors; and said \_\_\_\_\_  
and \_\_\_\_\_ duly acknowledged that they each had in their said  
official capacities executed the foregoing instrument as the act and deed of the said company for the consideration and  
purposes therein mentioned and set forth, I do hereby so certify.

Witness my hand and seal on this 15 day of July 20 11

My commission expires 7/16/13

Notary Public



### ACCEPTANCE BY ASSIGNEE

The assignee in the above and foregoing assignment, made subject to the approval of the Secretary of the Interior, hereby  
accepts such assignment and agrees to fulfill all the obligations, conditions, and stipulations in said described indenture of  
lease, when assigned, and the rules and regulations of the Secretary of the Interior, so far as applicable thereto and to furnish  
proper bond guaranteeing a faithful compliance with said lease and this assignment.

In Witness Whereof, the said assignee hereunto set \_\_\_\_\_ hand and seal the 15 day of July 20 11.

Attest:

Secretary

(SEAL)

James W. Harris  
President

### CONSENT OF SURETY

The \_\_\_\_\_ of \_\_\_\_\_  
surety for \_\_\_\_\_ on the bond  
accompanying the lease above described, hereby consents to the assignment and transfer of said lease as above made and  
agrees that their original bond shall remain in full force and effect.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

### DEPARTMENT OF THE INTERIOR BUREAU OF INDIAN AFFAIRS OSAGE AGENCY PAWTHUSKA, OKLAHOMA

Approved: **DEC - 7 2011**

Under the authority delegated by  
209 DM 8, 230 DM 1, 3 IAM 4.1  
and Muskogee Area Addendum  
9901 to 3 IAM 4 Issued June 22, 1999.

The within assignment is hereby approved pursuant to authority  
delegated by 25 CFR 226.15 (b)

/s/ Melissa Currey  
SUPERINTENDENT

Escrow Bank: Bancfirst

Bank Address: 8822 S Yale Ave Tulsa, OK 74137

Date: July 12, 2011

WE, THE UNDERSIGNED Jireh Resources LLC, and the SUPERINTENDENT, OSAGE AGENCY, BUREAU OF INDIAN AFFAIRS (The "Superintendent") hereby deposit with BancFirst ("escrow bank") the following monies to-wit:

FIFTY THOUSAND AND NO/100 DOLLARS (\$50,000)

Which shall be held by the said bank in escrow under the following instruction, to-wit:

- (a) The account shall be designated as the Jireh Resources LLC - Osage Account # 0591000100. Said certificate of deposit shall be purchased and owned by Jireh Resources LLC subject to conditions set forth below;
- (b) The Escrow Funds will be invested in one certificates of deposit and shall be automatically reinvested at then existing interest rates until the Escrow Agreement is terminated;
- (c) The superintendent may draft upon the Escrow funds upon the submission to the Escrow Agency of a sworn affidavit by the Superintendent stating that (i) Jireh Resources LLC is in default with regard to its obligations under Department of Interior regulations governing oil &/or gas leases covering lands located within Osage County, Oklahoma and (ii) the Superintendent has given Jireh Resources LLC thirty days notice of such default (including a specific description of the default) and the opportunity to cure same within said thirty (30) day period; unless said default is the subject of litigation in which case said funds shall remain in escrow;
- (d) Any funds remaining in the Escrow Account on the termination date (as defined below) will be distributed to Jireh Resources LLC;
- (e) All accrued interest shall be credited to Jireh Resources LLC and not added to the certificate of deposit;

DDA#0591003149

Subject, however, to the following terms, exceptions, provisions and conditions.

1. The escrow bank shall be liable as a depository only and shall not be responsible for the sufficiency or accuracy of the form, execution or validity of documents deposited hereunder, or any description of property or other things therein, nor shall it be liable in any respect on account of the identity, authority, or rights of the persons executing or delivering or purporting to execute or deliver any such document or paper.
2. The escrow bank, as part of the consideration for the acceptance of this escrow, shall not be liable for any acts or omissions done in good faith, nor for any claims, demands or losses, nor for any damages made and suffered by any party to this escrow, excepting such as may arise through or be caused by its willful or gross negligence.
3. The escrow bank shall not be liable for collection items until the proceeds of the same in actual cash have been received, and in making collections of items deposited hereunder, the parties hereto agree that the escrow bank may collect the same under the procedures customarily employed by it in handling other collections, nor shall it be liable for the default in payment of any installment of principal or interest nor shall it be liable for failure to demand payment of any instrument, present the same for payment or protest the same or given notice of protest of nonpayment thereof, nor the outlawing of any rights under the State of Limitations in respect to any document deposited; nor for interest on any deposit of money. It may rely upon any paper, document, or other writing believed by it to be authentic in making any delivery of money or property hereunder. The escrow bank shall in no way be responsible nor shall it be its duty to notify any party hereto or party interested in this escrow deposit of any payment or maturity, under the terms of any instrument deposited herewith.

4. It is agreed that this escrow contract shall not be terminated until the Superintendent authorizes such termination in writing or Bank gives 30 days written notice of its desire to cease serving as escrow agent.
5. It is further understood and agreed between the parties that these instruments supersede any other contract with reference to this escrow deposit, insofar as said escrow bank is concerned, and that the said bank may rely absolutely hereon to the exclusion of any and all other agreements between the parties hereto.
6. This Agreement shall be binding on the successors and assigns of the parties hereto.
7. This Agreement may be amended by written instrument executed by all parties.
8. Jireh Resources LLC may assign its interest in the Escrow Account subject to the approval of the Superintendent and the escrow bank.
9. The escrow bank shall provide Jireh Resources LLC and the Superintendent with semi-annual statements reflecting the balances and activity of the Escrow Account.
10. The escrow bank shall be paid an escrow fee of \$ 150.00 for each certificate so issued.
11. This certificate of deposit shall be subject to all normal banking rules and regulations including Regulation Q.

## PARTIES TO ESCROW CONTRACT

Jireh Resources LLC  
(PRINTED NAME OF COMPANY OR INDIVIDUAL)  
Robert M. House  
(SIGNATURE OF COMPANY AGENT OR INDIVIDUAL)

APPROVED: NOV - 9 2011

Under the authority delegated by 209 DM 8,  
230 DM 1, 3 IAM 4.1 and Muskogee Area  
Addendum 9901, to 3 IAM 4 issued June 22, 1999

Melissa Curry  
SUPERINTENDENT, OSAGE AGENCY  
BUREAU OF INDIAN AFFAIRS

FILE COPY
SURNAME
<u>A. Davis</u>
<u>Hub</u>

## ACCEPTED:

Bank First 918-664-3462  
Bank Telephone No.

8800 S. Yale Tulsa OK 74137  
Address of Bank

Andrea Ketchum V.P. + Branch Manager  
BY: Signature and Title of Bank Officer

## RECEIPT AND RELEASE

All monies, documents and papers relative to this escrow deposit have been received to our entire satisfaction this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, and the escrow bank herein relieved from all further liability or responsibility with reference thereto.

\_\_\_\_\_  
Date: \_\_\_\_\_



# Receipt for Certificate of Deposit Time Account

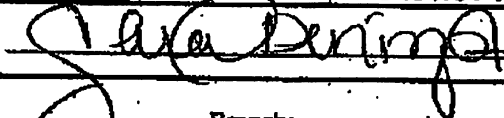
Product: 365 DAYS	Account #: 691000100
Date: 07/11/2011	Account Owner(s) and Mailing Address:
Plan ID#: 000	JIREH RESOURCES LLC
New <input checked="" type="checkbox"/> Ray <input checked="" type="checkbox"/> CSR: SDENIZOT	BUREAU OF INDIAN AFFAIRS
Comments:	2526 E 71ST ST STE A
This account is opened with the following type of account title:	TULSA, OK 74136

<b>Payer's Request for Taxpayer's Identification Number and Certification</b>		Taxpayer Identification Number: 26-4212846
<p><b>Certification - Under penalties of perjury, I certify that:</b></p> <p>(1) The number shown on this form is my correct taxpayer identification number and</p> <p>(2) I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding.</p> <p>(3) I am a U.S. Person (including a U.S. resident alien)</p> <p><b>Certification Instructions -</b> You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, the acquisition or abandonment of security property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN.</p>		
Signature: _____		Date: _____
<p align="center"><b>Account Term</b></p> <p>Interest Rate: .750%      APY: .75%      Rate Changer: Y      Opening Deposit: 50,000.00</p> <p>Opening Date: 07/11/2011      Term: 365 Days      Maturity Date: 07/10/2012      Signatures Required for Withdrawal: 1</p> <p>Consisting Of: 50000.00</p>		

<b>Account Options</b>	
<input type="checkbox"/> Maturity <input checked="" type="checkbox"/> Single Maturity <input checked="" type="checkbox"/> Automatic Renewal	<input type="checkbox"/> Interest will be paid every 365 days
<input type="checkbox"/> Interest will be paid by:	<input type="checkbox"/> Check <input type="checkbox"/> Add it back to account principal
<input type="checkbox"/> Transfer to another financial institution:	<input checked="" type="checkbox"/> Transfer to checking/savings account # 000591003149
Bank Name: _____	R/T #: _____      Account #: _____ ACH trancode: _____

**THIS BOOK ENTRY ACCOUNT IS SUBJECT TO THE BANCFIRST DEPOSIT AGREEMENT**

**THIS ACCOUNT IS NOT NEGOTIABLE AND IS NOT TRANSFERABLE**

Authorized Bank Signature: 
<b>BANK USE ONLY</b> Processed By: _____      Branch: _____      Date: _____

Inventory No.: OS6320

ROC		PHONE CALL		CONFERENCE	DATE: 3/7/14
	X	DISCUSSION		FYI	TIME: 8:00 am
TO: FILE FROM: Bill Hurlbut					
SUBJECT: Recommendation for permit modification #06S1261P6320 for well Blackland-McComb 18W, SW/4, Sec. 1, T27N, R07E, Osage Co., OK for Jireh Resources, LLC.					

STATS: This modification will allow him to increase his maximum injection pressure to 200 psig and increase his injection volume to 90,000 barrels per month.

RECOMMENDATIONS & CONCLUSIONS: The permit will allow the operator to inject 90,000 bpm at a maximum pressure of 200 psig. Operating at the maximum injection rate and injection pressure, the well will not endanger the USDW.

Scan Code 22

APR 17 2014

REPLY TO: 6WQ-NP

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4353 2954)

Mr. Lanny Woods  
Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

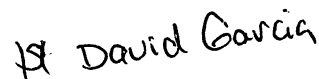
Re: Underground Injection Control Permit No. 06S1261P6320  
Final Permit Modification  
Osage County, Oklahoma

Dear Mr. Woods:

Enclosed is a copy of the final permit modification referenced above. Final permit conditions, including the modification, shall remain in effect until the well is plugged and abandoned or the permit is terminated.

If you have any questions, please contact Ms. Jenaie Franke in Dallas at (214) 665-7514.

Sincerely yours,

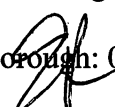


William K. Honker, P.E.  
Director  
Water Quality Protection Division (6WQ)

Enclosures

cc: w/enclosures:

BIA, Minerals Branch  
Osage UIC Office

rosborough: 04 /09/2014:R6320MOD.doc

bcc: Rosborough      Brown      6WQ

7010 2780 0002 4353 2954

U.S. Postal Service TM  
**CERTIFIED MAIL TM RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

Total

Sent To: Mr. Lanny Woods  
Jireh Resources, LLC  
Street: 2526 E. 71<sup>st</sup>, Suite A  
or PO: Tulsa, OK 74136  
City, St:

PS Form 3800, August 2006 See Reverse for Instructions

## Part II. CONDITIONS APPLICABLE TO ALL PERMITS - OSAGE

### A. Confidentiality

Any information except the permittee's name and address and information concerning the existence, absence or level of contaminants in drinking water may be claimed as confidential. Any claim of confidentiality must be asserted at the time of submission. If no claim is made, EPA may make the information available to the public without further notice.

### B. Duty to Comply

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification.

Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) of any other law for any imminent or substantial endangerment to human health of the environment or for any breach of any other applicable legal duty.

2. The permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in a temporary emergency permit under 40 CFR §147.2906.

### C. Duty to Halt or Reduce Activity

It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

E. Proper Operation and Maintenance

1. All injections wells must have and maintain mechanical integrity consistent with 40 CFR §147.2920(b). Mechanical integrity must be demonstrated initially and also any time the tubing is removed from the well, the packer is reset, or a loss of mechanical integrity becomes evident during operation. Furthermore, the Regional Administrator (RA) may by written notice require the permittee to demonstrate mechanical integrity at anytime. The permittee shall notify the Osage UIC office of his intent to prove mechanical integrity at least 5 days prior to such demonstration. The permittee shall report the results of the mechanical integrity demonstration within 30 days after completion (unless the demonstration is witnessed by an EPA inspector, in which case the inspector will prepare the report).
2. If the permittee or the RA finds that the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR §147.2920(b), becomes evident during operation, the operation shall be halted immediately and shall not be resumed until the RA gives approval to recommence injection.
3. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate engineering capability available, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

**F. Permit Actions**

1. This permit may be modified, revoked and reissued, or terminated for the following causes (see 40 CFR §147.2927 and 40 CFR §147.2928):
  - a) There are substantial changes to the facility or activity which occurred after permit issuance that justify revised or additional permit conditions.
  - a) The RA has received information (e.g., from monitoring reports, inspections) which warrants a modified permit.
  - b) The regulations or standards on which the permit was based have changed.
  - c) The RA has received notice of a proposed permit transfer.
  - d) An interested person requests in writing that a permit be modified and the RA determines that cause for modification exists.
  - e) Cause exists for termination under 40 CFR §147.2928, but the RA determines that permit modification is appropriate.

The modifications procedure described in 40 CFR §2927(c) must be followed to accomplish the modifications described in item "a" through "f" of this section.

2. Minor modifications do not require that the procedure listed in 40 CFR §147.2927(c) be followed.

Minor modifications consist of:

- a) Correcting typographical errors;
- b) Requiring more frequent monitoring or reporting;
- c) Changing ownership or operational control (see 40 CFR §147.2926, Permit Transfers); or

d) Changing quantities or types of injected fluids, provided:

- (i) The facility can operate within conditions of the permit;
- (ii) The facility classification would not change.

The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to the RA within a reasonable time any information which the RA requests to determine whether cause exists for modifying, revoking and reissuing or terminating this permit. The permittee shall also furnish to the RA, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow EPA representatives upon the presentation of credentials and other documentation to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records required by this permit are kept;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

J. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. The operator shall monitor the injection pressure (psi) and rate (bbl/day) once a month. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the RA at any time.

The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 CFR §147.2905. The RA may require the owner or operator to deliver the records to the RA at the conclusion of the retention period.

3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individuals who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;

- e. The analytical techniques or methods used including quality assurance techniques employed to insure the generation of reliable data; and
  - f. The results of such analyses.
4. The owner/operator shall retain all monitoring records for three (3) years, unless an enforcement action is pending, and then until three (3) years after the enforcement action has been resolved.

K. Signatory Requirements

All applications, reports, or information submitted to the RA shall be signed and certified (see 40 CFR §147.2925(j)) by the injection facility owner/operator or his duly authorized representative.

L. Reporting Requirements

1. The owner/operator shall notify the Osage UIC office within 30 days of the date on which injection commenced.
2. Planned changes - The permittee shall give advance notice to the RA of any planned changes which may result in noncompliance.
3. Transfers - This permit is not transferable to any person except after notice to the RA.
  - a) Permits may be transferred to another permittee:
    - (1) If the current permittee notifies the RA by certified mail at least 10 days before the proposed transfer date; and
    - (2) If the notice includes a written agreement between the existing and new permittees containing:
      - (i) A specific date for transfer of permit responsibility, coverage and liability; and

- (ii) Assurance that the new permittee has a surety bond on file with BIA; and
    - (3) If the RA does not respond with a notice to the existing permittee that the permit will be modified.
  - b) If the conditions in paragraph (a) of this section are met, the transfer is effective on the date specified in paragraph (a) (2) (i).
4. Monitoring reports - Monitoring results shall be reported annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The report shall specify the types of methods used to generate the monitoring data.
  5. Compliance schedules - Reports of compliance or noncompliance with, or any progress report on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each interim date and the final date of compliance.
  6. Twenty-four hour reporting - The permittee shall report to the Osage UIC office any noncompliance which may endanger an underground source of drinking water. The report shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The following shall be reported within 30 days of occurrence:
  - 1) Any monitoring reports or other information required under paragraph 6 that is not available within five (5) days.
  - 2) Any malfunction of the injection system including any mechanical failure or downhole problem involving well integrity, well workovers, or any noncompliance (Ref. 40 CFR §147.2922).
8. Other noncompliance - The permittee shall report all instances of noncompliance not reported under paragraphs 6 and 7 of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph L.6 of this section.
9. The permittee shall notify the Osage UIC office within 30 days of the date injection has terminated.
10. Other information - When the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the RA, the permittee shall promptly submit such facts or information.

M. Additional Conditions

1. The operator of a well shall not allow the movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect human health.
2. The owner/operator shall notify the Osage UIC office within 30 days of the date injection has terminated. The well must be plugged within one year after termination of injection. The RA may extend the time to plug, but only if no fluid movement into a USDW will occur, and the operator has presented a viable plan for utilizing the well within a reasonable time.

1. The permittee shall notify the Osage UIC office by certified mail at least five (5) days prior to the commencement of plugging operations. The notice must include that information prescribed at 40 CFR §147.2905(c).
2. Plugging and Abandonment - The well shall be plugged in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. Placement of cement plugs shall be accomplished by one of the methods described in 40 CFR §147.2905 or some other method approved by the RA.

The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the RA, prior to the placement of the cement plug(s).

N. Financial Responsibility

The permittee must demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection well. This shall be demonstrated by the submission of a surety bond to the Osage Agency Bureau of Indian Affairs.

O. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

P. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provisions to other circumstances, and the remainder of this permit, shall not be affected thereby.

Q. Explanation of Terms

Terms used in this permit are defined as follows:

“RA” - the EPA Regional Administrator

“UIC” - Underground Injection Control Program

“SDWA”/“the Act” - The Safe Drinking Water Act

“Osage UIC Office” - 625 Grandview Avenue, Osage Agency Campus,  
P. O. Box 1495, Pawhuska, OK 74056

Well Stimulation - means several processes used to clean the wellbore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.

Other references to program - specific terms, acronyms and abbreviations shall mean those terms as defined by the UIC program regulations, 40 CFR 124, 144, 145, 146, 147 and the Safe Drinking Water Act.



2526 East 71st Street, Suite A, Tulsa, OK 74136

Phone 918-895-7870 • Fax 918-895-7871 • [www.jirehresourcesllc.net](http://www.jirehresourcesllc.net)

January 12, 2014

Mr. Arnold Bierschank  
United States Environmental Protection Agency  
Region VI (6EN-SG)  
1445 Ross Ave.  
Dallas, Texas 75020-2733

RE: Increase water injection volume  
Blackland-McComb 18W  
OS6320  
SW/4 Section 1-27N-7E  
Osage County, Oklahoma

Max calculated  
IP = 725 psig  
used 100 —  
Mass chert - 130' thickness  
USDW - 622  
No inadequate wells  
in AOR

Dear Mr. Bierschank:

Jireh Resources LLC requests approval to increase the injection volume on the above caption well from the current 45,000 barrels per month to 90,000 barrels per month and change the current approved maximum wellhead injection pressure of 100 psi to 200 psi. The well is currently taking water on a strong vacuum and we believe the well is capable of taking the increased volumes with small wellhead pressure. This is a relatively new injection well, drilled and completed in early 2012. Care was taken to be sure we got a good cement job from the base of the USDW located at 622 feet to surface. There have been no changes in the AOR since our initial approval (map included). We would be willing to shoot a fluid level in the well if it were necessary for approval. To do this will mean shutting down our lease, so we would prefer not to do it.

A handwritten signature in black ink, appearing to read "Lanny Woods", written in a cursive style.

Lanny Woods

Jireh Resources LLC  
[lannywoods@jirehresourcesllc.com](mailto:lannywoods@jirehresourcesllc.com)

Scan Code: 04

Reviewer afb Permit # 06S1261P6320  
Date 12/19/2011 Company Jirch Resources L.L.C.  
Well # Blackland 18W

Location: Southwest Quarter Section 1, Township 27N, Range 7E; 330' from south line, 660' from west line

TECHNICAL REVIEW

Type of Injection Well: disposal

Injection: Continuous

Approximate # Days operating/year 365  
Rate (B/D): Average Maximum 45,000 barrels per month  
Wellhead Pressure (psi): Average Maximum 100  
Fluid: TDS SP.GR. 1.101 Analysis Included: [No]  
Source (Formation Name): Mississippi Chat

Geologic Data (All references to depths are below land surface)

Base of Historical Usable Water:  
Base of USDW and How Determined: 622' -, OS6213  
Injection Interval: Top 2650 Bottom 2720 Effective Thickness 130'  
Formation Name Mississippi Chat Lithology Sandstone  
Porosity (%) 15% Initial Reservoir Pressure Date  
Permeability (md)  
Confining Zones: Thickness between injection zone & USDW 2028  
Lithology  
Cumulative Shale Thickest Shale Zone (Interval)

Well Data: (All references to depths are below land surface)

Surface Elevation 1122 GL Total Depth 2750'  
Date Drilled or to be Drilled Plugged Back Depth  
Type Logs Available(this well/offset well): (By reference/included) None  
Test Data (By reference/included)

Construction:	Size (In.)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	<u>8 5/8</u>	<u>0-45</u>	<u>12</u>	<u>12 1/4</u>	<u>0-45</u>	<u>Calculated</u>
Intermediate Csg.	-					
Long String Csg.	-					
Liner Csg.	<u>5.5</u>	<u>0-2740</u>	<u>300</u>	<u>63/4</u>	<u>0-2750'</u>	<u>Calculated</u>

Tubing 27/8 0-2645 Packer type & depth J tension - 2645'

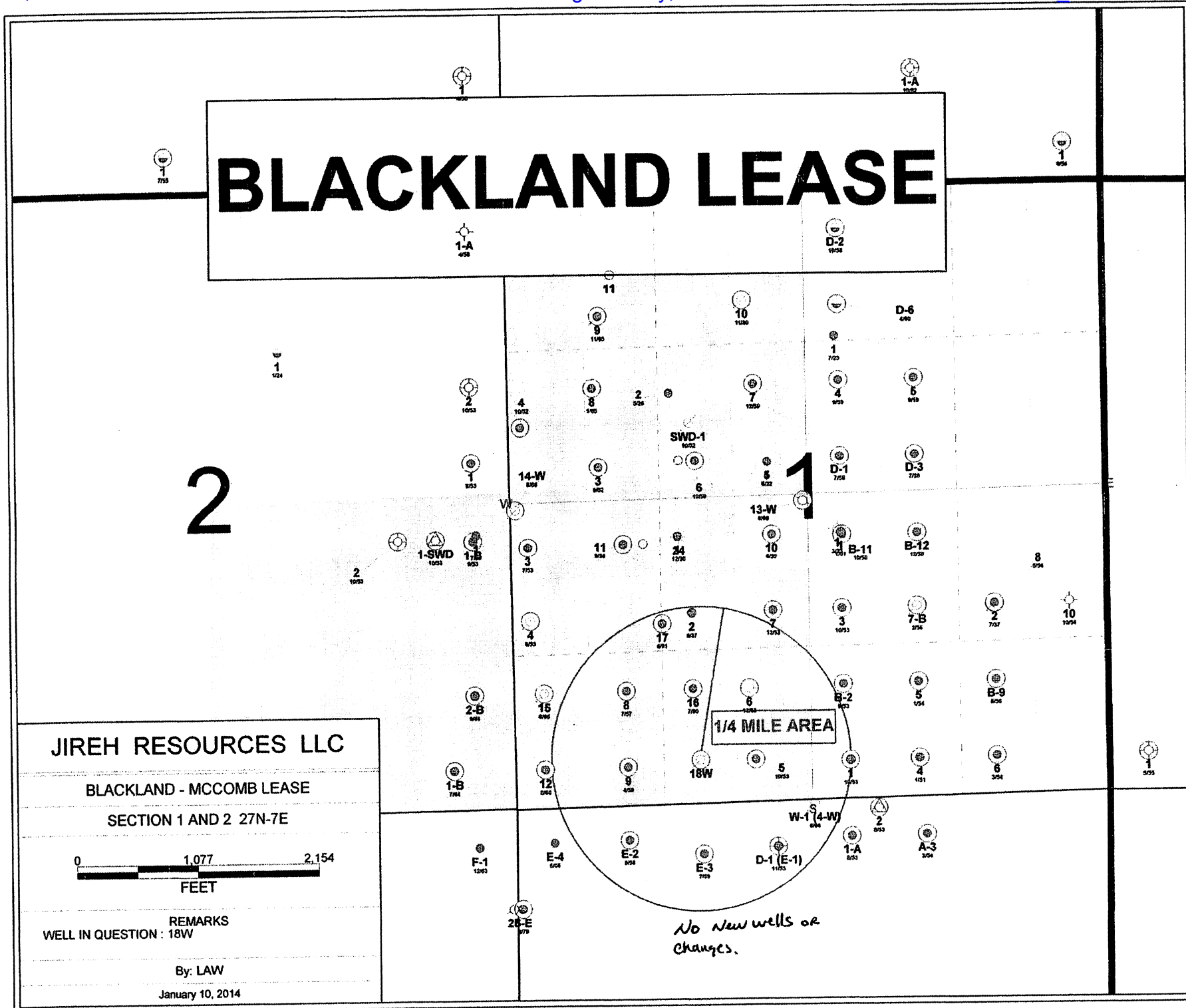
Type Cement =	ft <sup>3</sup> / Sx.	X	# of Sx.	Total ft <sup>3</sup> of Cement	Lin ft / ft <sup>3</sup> X from tables	Lin. ft. = of Cement
	<u>1.18</u>		<u>12</u>	<u>13.2</u>	<u>2.4229</u>	<u>32</u>
	<u>.1.18</u>		<u>300</u>	<u>354</u>	<u>5.9181</u>	<u>2095</u>

Area of Review (AOR) (1/4 mile - Osage; 1/2 mile - O.I.L.)

Map Submitted: Yes Tabulation of Wells Submitted: Yes  
Faults Located: None Present  
Number of Wells in AOR: Plugged Abandoned 2 Production 6 injection Shut-in  
Number of Wells in Zone of Endangering Influence 0  
Number of Wells Requiring Corrective Action: SWD no

Well Well Type Problem Corrective Action Required  
Maximum Injection Pressure Calculation: Pm=(Frac Gradient - (.433 X SP.GR.)) X 2650 (Used  
100 psig. Mississippi Chat)

Well Passes Technical Review Date 12/19/2011 Reviewer AFB



07

OS6320

6320

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"><li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>■ Print your name and address on the reverse so that we can return the card to you.</li><li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul>		<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <input type="checkbox"/> Agent DAVID W HOUSE <input type="checkbox"/> Addressee</p> <p>C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>ROBERT WYNE JENNINGS APR 2 2012 STULSA OK 74153</p>	
1. Article Addressed to: 0651261P6320 Tirch Resources, LLC		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
2. Article (Tracking Number) 1 17009 2820 0004 2109 4591		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Inventory No.: OS6320

ROC		PHONE CALL		CONFERENCE	DATE: 12/19/2011
	X	DISCUSSION		FYI	TIME: 10:58 am
TO: FILE		FROM: Arnold Bierschenk			
SUBJECT: Recommendation for emergency permit #06S1261P6320 for well Blackland 18W Southwest Quarter Section 1, Township 27N, Range 7E, Osage Co., OK for Jireh Resources L.L.C.					

PERMIT REQUEST: The operator has requested a permit to convert this well to inject salt water into the Mississippi Chat formation. They need this well in order to disposal production from their surrounding wells.

STATS: The well is planned to have a 45 foot surface casing cemented to surface with 12 sacks of cement The well is planned to have 5 ½ " liner set at 2740 feet and cemented with 300 sacks of cement to surface.

The base of the treatable water in this area is 622' below ground level taken from OS6213.

There were no inadequate wells incorporated in the radius of influence. Due to the fractured nature of the Mississippi Chat formation no ZEI was run for this well.

RECOMMENDATIONS & CONCLUSIONS: The permit will allow the operator to inject 45,000 barrels per month bpm at a maximum pressure of 100 psig. Operating at the maximum injection rate and injection pressure, the well will not endanger the USDW.

OS6320

**Emergency Authorization Jireh Resources Blackland 18W**   
**Arnold Bierschenk** to: Norma Pinney

12/19/2011 10:58 AM

From: Arnold Bierschenk/R6/USEPA/US  
To: "Norma Pinney" <npinney@ppcooil.com>

This will be your emergency authorization for the permit listed below:

This is a verbal authorization, and will be followed shortly by the written emergency permit. It will go to public notice as soon as possible, but in the meantime you have emergency authorization for use of this well.

As permittee, you are authorized to inject salt water for salt water disposal under the following conditions:

**OS6320** Blackland 18W SWE/4 Sec 1, T27N-R7E

Jireh Resources LLC  
2526 East 71st Street - Suite A  
Tulsa, Oklahoma 74136

The USDW in the area is approximately 622 feet below ground surface. Since this is a new drill, the well should be treated so as to ensure the fluid level in the well is below that prior to demonstrating mechanical integrity.

1. Mechanical integrity of the well must be demonstrated, to the satisfaction of the EPA, prior to injection.
2. The permittee is authorized to inject salt water into the Mississippi Chat at an injection interval depth of 2650 to 2720 feet below land surface.
3. Injection shall not result in the movement of fluid into an Underground Source of Drinking Water (USDW). The operating injection pressure at the wellhead shall not exceed 100 psig.
4. Injection volume shall be limited to a maximum of 45,000 barrels per month.

"Norma Pinney" <<Blackland 18W.PDF>> Arnold, here is the pe...

12/16/2011 04:29:38 PM

From: "Norma Pinney" <npinney@ppcooil.com>  
To: Arnold Bierschenk/R6/USEPA/US@EPA  
Date: 12/16/2011 04:29 PM  
Subject: Emailing: Blackland 18W

---

<<Blackland 18W.PDF>> Arnold, here is the permit for the Blackland 18W.



**Region 6**  
**1445 Ross Avenue**  
**Dallas, Texas 75202-2733**

**UIC Permit No.: 06S1261P6320**  
**Well No.: Blackland-McComb 18W**

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**MINOR MODIFICATION TO ENVIRONMENTAL PROTECTION AGENCY  
OSAGE COUNTY UIC PROGRAM**

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Permit No. 06S1261P6320

Dated: April 12, 2012

Permit conditions II.J.1 and II.L.4 prescribed by Permit No. 06S1261P6320 have been revised to read as follows:

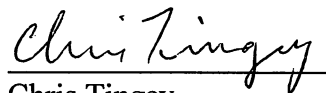
- II.J.1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. Within 30 days of the effective date, the operator shall monitor the injection pressure (psi) and rate (bbl/day) once a day. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.
- II.L.4. Monitoring reports – Monitoring results shall be electronically reported by COB, Wednesday, for the preceding week and annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The reports shall specify the types of methods used to generate the monitoring data.

This minor modification is part of the permit and shall be attached thereto in accordance with 40 CFR Subpart GGG, §147.2927.

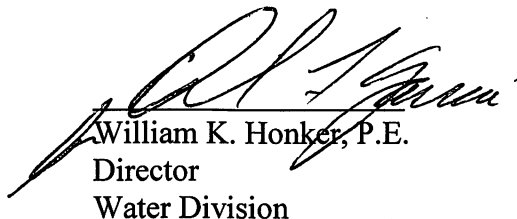
This minor permit modification shall become effective on 11 MAY 2017

Prepared by

Issued on 11 MAY 2017



Chris Tingey  
Geologist  
Ground Water/UIC Section

  
William K. Honker, P.E.  
Director  
Water Division

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

APR 17 2014

REPLY TO: 6WQ-NP

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4353 2954)

Mr. Lanny Woods  
Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136Re: Underground Injection Control Permit No. 06S1261P6320  
Final Permit Modification  
Osage County, Oklahoma

Dear Mr. Woods:

Enclosed is a copy of the final permit modification referenced above. Final permit conditions, including the modification, shall remain in effect until the well is plugged and abandoned or the permit is terminated.

If you have any questions, please contact Ms. Evelyn Rosborough in Dallas at (214) 665-7515.

Sincerely yours,

A handwritten signature in black ink, appearing to read "W. K. Honker", is positioned above the printed name of the signatory.

William K. Honker, P.E.  
Director

Water Quality Protection Division (6WQ)

Enclosures

cc: w/enclosures:

BIA, Minerals Branch  
Osage UIC Office



Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

UIC Permit No.: 06S1261P6320  
Well No.: Blackland-McComb 18W

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**MODIFICATION TO ENVIRONMENTAL PROTECTION AGENCY  
OSAGE COUNTY UIC PROGRAM**

Permit No. 06S1261P6320  
Dated: April 12, 2012

Permit conditions I.B.2. and I.B.4. as prescribed by Permit No. 06S1261P6320 have been revised to read as follows:

I.B.2. Except during well stimulation, injection pressure at the wellhead shall not exceed 200 psig.

I.B.4. Injection volume shall be limited to 90,000 barrels per month.

This modification is part of the permit and shall be attached thereto in accordance with 40 CFR Subpart GGG, §147.2927.

This permit modification shall become effective on **APR 17 2014**

Prepared by

Issued on **APR 17 2014**

A handwritten signature in cursive script, appearing to read "Bill Hurlbut".

Bill Hurlbut  
Geologist  
Ground Water/UIC Section

A handwritten signature in cursive script, appearing to read "William Honker".

William Honker, P.E.  
Director  
Water Quality Protection Division

June 12, 2012

Scan Code  
19

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4356 2326)

REPLY TO: 6WQ-NP

Ms. Norma Standridge  
Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

Re: Underground Injection Control Permit No. 06S1261P6320  
Authorization to Inject  
Osage County, Oklahoma

Dear Ms. Standridge:

Enclosed is an authorization to inject into Blackland 18W well. This authorization is issued under authority of the Safe Drinking Water Act and the Osage Underground Injection Control (UIC) program regulations [40 CFR §147.2920]. The pressure test completed on this well on March 19, 2012, showed that the well has mechanical integrity as required by the referenced permit and any modifications.

If you have any questions, please contact Ms. Jenaie Franke at (214) 665-7514.

Sincerely yours,

William K. Honker, P.E.  
Acting Director  
Water Quality Protection Division

cc: with enclosure  
BIA Mineral Branch  
Osage UIC Office

bcc: with enclosure:  
Brown (6WQ-NP)  
Reading File (6WQ-NP)

6WQ-NP:DBROWN:X8141:4-3-12

ATI OS 6320

6WQ-NP  
FRANKE

JF 6/13/12

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City, State, ZIP+4

PS Form 3800, August 2006

See Reverse for Instructions

7010 2780 0002 4356 2326

Well No.: Blackland 18W  
Permit No.: 06S1261P6320

ENVIRONMENTAL PROTECTION AGENCY  
Underground Injection Control Program

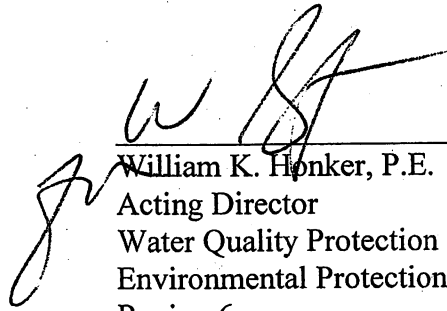
OSAGE MINERAL RESERVE  
Authorization to Inject

Jireh Resources, LLC is hereby authorized to begin injection and operate Blackland 18W well, located at 330' FSL, 1650 FWL, SW/4, Sec. 1, T 27N, R 7E, as a Class II injection well. The permittee is authorized to inject salt water for disposal.

Conversion of the well identified herein was authorized by Permit No. 06S1261P6320, dated April 12, 2012. This Authorization to Inject is hereby made a part of the referenced permit.

All requirements and conditions prescribed under Permit No. 06S1261P6320 and any modification apply and remain in full force and effect during the effective period of this permit. The authorization is effective from the date entered below and shall remain in effect unless terminated.

Signed this 12th day of June, 2012.

  
\_\_\_\_\_  
William K. Honker, P.E.  
Acting Director  
Water Quality Protection Division  
Environmental Protection Agency  
Region 6

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

APR 12 2012

REPLY TO: 6WQ-NP

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4355 8435)

Ms. Norma Standridge  
Jireh Resources L.L.C.  
2526 East 71<sup>st</sup> Street-Suite A  
Tulsa, Oklahoma 74136Re: Underground Injection Control (UIC) Final Permit  
Permit No. 06S1261P6320 - Osage County, Oklahoma

Dear Ms. Standridge:

Enclosed is a copy of the final permit referenced above. Please read the entire permit in order to become familiar with the effective date and the conditions of the permit. You will notice that Permit Condition Number I.B.1. requires that the well pass a Mechanical Integrity Test and receive an Authorization to Inject from this office prior to any future operation of the well. Authorization to Inject will not be granted until you have satisfactorily demonstrated compliance with special permit conditions I.A.1., I.A.2., I.A.3., and I.B.1. The Agency will review each issued permit at least once every five years to determine whether it should be modified or terminated.

The Bureau of Indian Affairs (BIA) also requires that you apply for and receive authorization to complete the work described in the referenced permit application. Please contact the BIA office at (918) 287-5710 for further information. To schedule your well for testing, please contact the Osage UIC office in Pawhuska at (918) 287-5333.

If you have any questions please call Evelyn Rosborough at (214) 665-7515 at the Environmental Protection Agency (EPA) in Dallas.

Sincerely yours,

  
William K. Honker  
Acting Director

Water Quality Protection Division (6WQ)

Enclosures

cc with enclosures:

BIA, Minerals Branch  
Osage UIC Office



Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

UIC Permit No. 06S1261P6320  
Well No.: Blackland 18W

## AUTHORIZATION TO CONVERT A WELL TO AN INJECTION WELL UNDER THE UIC PROGRAM OSAGE MINERAL RESERVE

In compliance with the provisions of the Safe Drinking Water Act, (hereafter referred to as "the Act" or "SDWA") as amended (42 U.S.C. §300f et seq.),

Jireh Resources L.L.C.  
2526 East 71st Street-Suite A  
Tulsa, Oklahoma 74136

is authorized to convert a well to a Class II disposal injection well. This well is located at:

330 feet from the south line and 1650 feet from the west line, Southwest Quarter Section 1, Township 27N, Range 7E into the injection interval at a depth of 2650 to 2720 feet below land surface in the Mississippi Chat in accordance with the construction and operation requirements, injection pressure limits, reporting and monitoring requirements, and other conditions set forth in Parts I and II of this permit and the Osage Class II Underground Injection Control Program and Regulations.

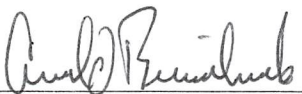
**Unless authorization to inject is granted, this permit shall remain in effect for one year from the effective date shown below. Authorization to inject fluids into the well shall be granted only upon compliance with permit conditions, I.A.1., I.A.2., I.A.3., and I.B.1. Authorization to inject fluids into the well may be verbally granted by the Chief, Ground Water/UIC Section or by written "Authorization to Inject" from the Director, Water Quality Protection Division (6WQ). Upon authorization to inject, this permit shall remain in effect until the well is plugged or the permit is terminated.**

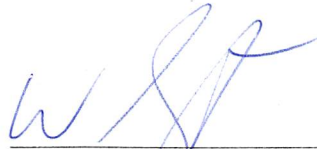
This permit shall become effective on **APR 12 2012**

Prepared by

Issued on

**APR 12 2012**

  
Arnold Bierschenk  
Environmental Scientist  
Ground Water/UIC Section  
(6WQ-SG)

  
William K. Honker, P.E.  
Acting Director  
Water Quality Protection  
Division

Part I. SPECIAL PERMIT CONDITIONS

A. Construction Requirements

1. The surface casing shall be set at 45 feet below land surface and set with 12 sacks of cement to surface, and the longstring casing set at 2740 feet below land surface cemented with 300 sacks of cement to surface.
2. The well shall be equipped with standard female fittings with cut-off valves connected to the tubing and the tubing/casing annulus so that the injection pressure and annulus pressure may be measured by an EPA representative by attaching a gauge having a standard male fitting.
3. Tubing and packer shall be installed. The packer shall be run on the tubing and set inside the casing between 2575 to 2645 feet of depth below the land surface.

B. Operating Requirements

1. Authorization to inject will not be granted until the permittee shows to the satisfaction of the Director, Water Quality Protection Division, pursuant to 40 CFR §147.2920(b)(1)(i) that the well has mechanical integrity. The well's mechanical integrity must be demonstrated prior to the start of injection and at least every five years thereafter. The permittee must notify the Osage UIC office at least five (5) days prior to mechanical integrity testing so that an EPA representative can witness the test..
2. Injection pressure at the wellhead shall not exceed 100 psig.
3. The permittee is authorized to inject salt water for disposal.
4. Injection volume shall be limited to 45,000 barrels per month.

Part II. CONDITIONS APPLICABLE TO ALL PERMITS - OSAGE

A. Confidentiality

Any information except the permittee's name and address and information concerning the existence, absence or level of contaminants in drinking water may be claimed as confidential. Any claim of confidentiality must be asserted at the time of submission. If no claim is made, EPA may make the information available to the public without further notice.

B. Duty to Comply

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification.

Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) of any other law for any imminent or substantial endangerment to human health of the environment or for any breach of any other applicable legal duty.

2. The permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in a temporary emergency permit under 40 CFR §147.2906.

C. Duty to Halt or Reduce Activity

It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

E. Proper Operation and Maintenance

1. All injections wells must have and maintain mechanical integrity consistent with 40 CFR §147.2920(b). Mechanical integrity must be demonstrated initially and also any time the tubing is removed from the well, the packer is reset, or a loss of mechanical integrity becomes evident during operation. Furthermore, the Regional Administrator (RA) may by written notice require the permittee to demonstrate mechanical integrity at anytime. The permittee shall notify the Osage UIC office of his intent to prove mechanical integrity at least 5 days prior to such demonstration. The permittee shall report the results of the mechanical integrity demonstration within 30 days after completion (unless the demonstration is witnessed by an EPA inspector, in which case the inspector will prepare the report).
2. If the permittee or the RA finds that the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR §147.2920(b), becomes evident during operation, the operation shall be halted immediately and shall not be resumed until the RA gives approval to recommence injection.
3. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate engineering capability available, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

F. Permit Actions

1. This permit may be modified, revoked and reissued, or terminated for the following causes (see 40 CFR §147.2927 and 40 CFR §147.2928):
  - a) There are substantial changes to the facility or activity which occurred after permit issuance that justify revised or additional permit conditions.
  - a) The RA has received information (e.g., from monitoring reports, inspections) which warrants a modified permit.
  - b) The regulations or standards on which the permit was based have changed.
  - c) The RA has received notice of a proposed permit transfer.
  - d) An interested person requests in writing that a permit be modified and the RA determines that cause for modification exists.
  - e) Cause exists for termination under 40 CFR §147.2928, but the RA determines that permit modification is appropriate.

The modifications procedure described in 40 CFR §2927(c) must be followed to accomplish the modifications described in item "a" through "f" of this section.

2. Minor modifications do not require that the procedure listed in 40 CFR §147.2927(c) be followed.

Minor modifications consist of:

- a) Correcting typographical errors;
- b) Requiring more frequent monitoring or reporting;
- c) Changing ownership or operational control (see 40 CFR §147.2926, Permit Transfers); or

- d) Changing quantities or types of injected fluids, provided:
  - (i) The facility can operate within conditions of the permit;
  - (ii) The facility classification would not change.

The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to the RA within a reasonable time any information which the RA requests to determine whether cause exists for modifying, revoking and reissuing or terminating this permit. The permittee shall also furnish to the RA, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow EPA representatives upon the presentation of credentials and other documentation to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records required by this permit are kept;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

J. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. The operator shall monitor the injection pressure (psi) and rate (bbl/day) once a month. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the RA at any time.

The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 CFR §147.2905. The RA may require the owner or operator to deliver the records to the RA at the conclusion of the retention period.

3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individuals who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;

- e. The analytical techniques or methods used including quality assurance techniques employed to insure the generation of reliable data; and
  - f. The results of such analyses.
4. The owner/operator shall retain all monitoring records for three (3) years, unless an enforcement action is pending, and then until three (3) years after the enforcement action has been resolved.

K. Signatory Requirements

All applications, reports, or information submitted to the RA shall be signed and certified (see 40 CFR §147.2925(j)) by the injection facility owner/operator or his duly authorized representative.

L. Reporting Requirements

1. The owner/operator shall notify the Osage UIC office within 30 days of the date on which injection commenced.
2. Planned changes - The permittee shall give advance notice to the RA of any planned changes which may result in noncompliance.
3. Transfers - This permit is not transferable to any person except after notice to the RA.
  - a) Permits may be transferred to another permittee:
    - (1) If the current permittee notifies the RA by certified mail at least 10 days before the proposed transfer date; and
    - (2) If the notice includes a written agreement between the existing and new permittees containing:
      - (i) A specific date for transfer of permit responsibility, coverage and liability; and

- (ii) Assurance that the new permittee has a surety bond on file with BIA; and
    - (3) If the RA does not respond with a notice to the existing permittee that the permit will be modified.
  - b) If the conditions in paragraph (a) of this section are met, the transfer is effective on the date specified in paragraph (a) (2) (i).
4. Monitoring reports - Monitoring results shall be reported annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The report shall specify the types of methods used to generate the monitoring data.
  5. Compliance schedules - Reports of compliance or noncompliance with, or any progress report on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each interim date and the final date of compliance.
  6. Twenty-four hour reporting - The permittee shall report to the Osage UIC office any noncompliance which may endanger an underground source of drinking water. The report shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The following shall be reported within 30 days of occurrence:
  - 1) Any monitoring reports or other information required under paragraph 6 that is not available within five (5) days.
  - 2) Any malfunction of the injection system including any mechanical failure or downhole problem involving well integrity, well workovers, or any noncompliance (Ref. 40 CFR §147.2922).
8. Other noncompliance - The permittee shall report all instances of noncompliance not reported under paragraphs 6 and 7 of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph L.6 of this section.
9. The permittee shall notify the Osage UIC office within 30 days of the date injection has terminated.
10. Other information - When the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the RA, the permittee shall promptly submit such facts or information.

M. Additional Conditions

1. The operator of a well shall not allow the movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect human health.
2. The owner/operator shall notify the Osage UIC office within 30 days of the date injection has terminated. The well must be plugged within one year after termination of injection. The RA may extend the time to plug, but only if no fluid movement into a USDW will occur, and the operator has presented a viable plan for utilizing the well within a reasonable time.

1. The permittee shall notify the Osage UIC office by certified mail at least five (5) days prior to the commencement of plugging operations. The notice must include that information prescribed at 40 CFR §147.2905(c).
2. Plugging and Abandonment - The well shall be plugged in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. Placement of cement plugs shall be accomplished by one of the methods described in 40 CFR §147.2905 or some other method approved by the RA.

The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the RA, prior to the placement of the cement plug(s).

N. Financial Responsibility

The permittee must demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection well. This shall be demonstrated by the submission of a surety bond to the Osage Agency Bureau of Indian Affairs.

O. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

P. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provisions to other circumstances, and the remainder of this permit, shall not be affected thereby.

Q. Explanation of Terms

Terms used in this permit are defined as follows:

“RA” - the EPA Regional Administrator

“UIC” - Underground Injection Control Program

**“SDWA”/“the Act” - The Safe Drinking Water Act**

**“Osage UIC Office” - 625 Grandview Avenue, Osage Agency Campus,  
P. O. Box 1495, Pawhuska, OK 74056**

**Well Stimulation - means several processes used to clean the wellbore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.**

**Other references to program - specific terms, acronyms and abbreviations shall mean those terms as defined by the UIC program regulations, 40 CFR 124, 144, 145, 146, 147 and the Safe Drinking Water Act.**

## Part II. CONDITIONS APPLICABLE TO ALL PERMITS - OSAGE

### A. Confidentiality

Any information except the permittee's name and address and information concerning the existence, absence or level of contaminants in drinking water may be claimed as confidential. Any claim of confidentiality must be asserted at the time of submission. If no claim is made, EPA may make the information available to the public without further notice.

### B. Duty to Comply

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification.

Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) of any other law for any imminent or substantial endangerment to human health of the environment or for any breach of any other applicable legal duty.

2. The permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in a temporary emergency permit under 40 CFR §147.2906.

### C. Duty to Halt or Reduce Activity

It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

E. Proper Operation and Maintenance

1. All injections wells must have and maintain mechanical integrity consistent with 40 CFR §147.2920(b). Mechanical integrity must be demonstrated initially and also any time the tubing is removed from the well, the packer is reset, or a loss of mechanical integrity becomes evident during operation. Furthermore, the Regional Administrator (RA) may by written notice require the permittee to demonstrate mechanical integrity at anytime. The permittee shall notify the Osage UIC office of his intent to prove mechanical integrity at least 5 days prior to such demonstration. The permittee shall report the results of the mechanical integrity demonstration within 30 days after completion (unless the demonstration is witnessed by an EPA inspector, in which case the inspector will prepare the report).
2. If the permittee or the RA finds that the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR §147.2920(b), becomes evident during operation, the operation shall be halted immediately and shall not be resumed until the RA gives approval to recommence injection.
3. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate engineering capability available, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

F. Permit Actions

1. This permit may be modified, revoked and reissued, or terminated for the following causes (see 40 CFR §147.2927 and 40 CFR §147.2928):
  - a) There are substantial changes to the facility or activity which occurred after permit issuance that justify revised or additional permit conditions.
  - a) The RA has received information (e.g., from monitoring reports, inspections) which warrants a modified permit.
  - b) The regulations or standards on which the permit was based have changed.
  - c) The RA has received notice of a proposed permit transfer.
  - d) An interested person requests in writing that a permit be modified and the RA determines that cause for modification exists.
  - e) Cause exists for termination under 40 CFR §147.2928, but the RA determines that permit modification is appropriate.

The modifications procedure described in 40 CFR §2927(c) must be followed to accomplish the modifications described in item "a" through "f" of this section.

2. Minor modifications do not require that the procedure listed in 40 CFR §147.2927(c) be followed.

Minor modifications consist of:

- a) Correcting typographical errors;
- b) Requiring more frequent monitoring or reporting;
- c) Changing ownership or operational control (see 40 CFR §147.2926, Permit Transfers); or

d) Changing quantities or types of injected fluids, provided:

- (i) The facility can operate within conditions of the permit;
- (ii) The facility classification would not change.

The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to the RA within a reasonable time any information which the RA requests to determine whether cause exists for modifying, revoking and reissuing or terminating this permit. The permittee shall also furnish to the RA, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow EPA representatives upon the presentation of credentials and other documentation to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records required by this permit are kept;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

J. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. The operator shall monitor the injection pressure (psi) and rate (bbl/day) once a month. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the RA at any time.

The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 CFR §147.2905. The RA may require the owner or operator to deliver the records to the RA at the conclusion of the retention period.

3. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individuals who performed the sampling or measurements;
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;

- e. The analytical techniques or methods used including quality assurance techniques employed to insure the generation of reliable data; and
  - f. The results of such analyses.
4. The owner/operator shall retain all monitoring records for three (3) years, unless an enforcement action is pending, and then until three (3) years after the enforcement action has been resolved.

K. Signatory Requirements

All applications, reports, or information submitted to the RA shall be signed and certified (see 40 CFR §147.2925(j)) by the injection facility owner/operator or his duly authorized representative.

L. Reporting Requirements

- 1. The owner/operator shall notify the Osage UIC office within 30 days of the date on which injection commenced.
- 2. Planned changes - The permittee shall give advance notice to the RA of any planned changes which may result in noncompliance.
- 3. Transfers - This permit is not transferable to any person except after notice to the RA.
  - a) Permits may be transferred to another permittee:
    - (1) If the current permittee notifies the RA by certified mail at least 10 days before the proposed transfer date; and
    - (2) If the notice includes a written agreement between the existing and new permittees containing:
      - (i) A specific date for transfer of permit responsibility, coverage and liability; and

- (ii) Assurance that the new permittee has a surety bond on file with BIA; and
    - (3) If the RA does not respond with a notice to the existing permittee that the permit will be modified.
  - b) If the conditions in paragraph (a) of this section are met, the transfer is effective on the date specified in paragraph (a) (2) (i).
4. Monitoring reports - Monitoring results shall be reported annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The report shall specify the types of methods used to generate the monitoring data.
  5. Compliance schedules - Reports of compliance or noncompliance with, or any progress report on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each interim date and the final date of compliance.
  6. Twenty-four hour reporting - The permittee shall report to the Osage UIC office any noncompliance which may endanger an underground source of drinking water. The report shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. The following shall be reported within 30 days of occurrence:
  - 1) Any monitoring reports or other information required under paragraph 6 that is not available within five (5) days.
  - 2) Any malfunction of the injection system including any mechanical failure or downhole problem involving well integrity, well workovers, or any noncompliance (Ref. 40 CFR §147.2922).
8. Other noncompliance - The permittee shall report all instances of noncompliance not reported under paragraphs 6 and 7 of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph L.6 of this section.
9. The permittee shall notify the Osage UIC office within 30 days of the date injection has terminated.
10. Other information - When the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the RA, the permittee shall promptly submit such facts or information.

M. Additional Conditions

1. The operator of a well shall not allow the movement of fluid containing any contaminant into underground sources of drinking water if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect human health.
2. The owner/operator shall notify the Osage UIC office within 30 days of the date injection has terminated. The well must be plugged within one year after termination of injection. The RA may extend the time to plug, but only if no fluid movement into a USDW will occur, and the operator has presented a viable plan for utilizing the well within a reasonable time.

1. The permittee shall notify the Osage UIC office by certified mail at least five (5) days prior to the commencement of plugging operations. The notice must include that information prescribed at 40 CFR §147.2905(c).
2. Plugging and Abandonment - The well shall be plugged in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. Placement of cement plugs shall be accomplished by one of the methods described in 40 CFR §147.2905 or some other method approved by the RA.

The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the RA, prior to the placement of the cement plug(s).

N. Financial Responsibility

The permittee must demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection well. This shall be demonstrated by the submission of a surety bond to the Osage Agency Bureau of Indian Affairs.

O. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

P. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provisions to other circumstances, and the remainder of this permit, shall not be affected thereby.

Q. Explanation of Terms

Terms used in this permit are defined as follows:

“RA” - the EPA Regional Administrator

“UIC” - Underground Injection Control Program

“SDWA”/“the Act” - The Safe Drinking Water Act

“Osage UIC Office” - 625 Grandview Avenue, Osage Agency Campus,  
P. O. Box 1495, Pawhuska, OK 74056

Well Stimulation - means several processes used to clean the wellbore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, (5) hydraulic fracturing.

Other references to program - specific terms, acronyms and abbreviations shall mean those terms as defined by the UIC program regulations, 40 CFR 124, 144, 145, 146, 147 and the Safe Drinking Water Act.

Scan Code: 07

Permit No.: 06S1261P6320

MAR 28 2012

REPLY TO: 6WQ-S

Certified Mail #7009 2820 0004 2109 9591 - Return Receipt Requested

Mr. Norma Standridge  
Jireh Resources L.L.C.  
2526 East 71st Street-Suite A.  
Tulsa, Oklahoma 74136

Re: Draft UIC Permit and Statement of Basis  
Permit No. 06S1261P6320 - Osage County, Oklahoma

Dear Ms. Standridge:

Enclosed are the public notice, statement of basis, and the permit which have been drafted by this Agency under the authority of the Safe Drinking Water Act. Any comments you wish to make may be submitted in writing by the due date stated in the public notice to Ms. Evelyn Rosborough at the EPA address above.

The Bureau of Indian Affairs (BIA) also requires that you apply for and receive authorization to complete the work described in the referenced permit application. Both EPA and BIA authorizations must be received prior to the commencement of this work. Please contact the BIA office at (918) 287-5710 for further information.

If you have any questions, or would like to discuss this permit, please contact the permit writer, Mr. Arnold Bierschenk at (214) 665-7435.

Sincerely yours,



Stacey B. Dwyer, P.E.  
Associate Director  
Source Water Protection Branch

Enclosures

cc: with enclosures

BIA, Minerals Branch

Osage UIC Office

6WQ-SG: ABIERSCHENK:12/19/2011: 06S1261P6320.3

6WQ-SG DELLINGER

3-16-12

7009 2820 0004 2109 9591

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City, State, ZIP+4<sup>®</sup> Tulsa, OK 74136

PS Form 3800, August 2006 See Reverse for Instructions

Scan Code: 20

Permit No.: 06S1261P6320

MAR 28 2012

REPLY TO: 6WQ

Certified Mail #7009 2820 0004 2109 9591- Return Receipt Requested

Mr. Norma Standridge  
Jireh Resources L.L.C.  
2526 East 71st Street-Suite A.  
Tulsa, Oklahoma 74136

Re: Emergency Permit - Permit No. 06S1261P6320  
Osage County, Oklahoma

Dear Ms. Standridge:

Regulations at 40 C.F.R. §147.2906 provide for issuance of emergency permits to avoid a substantial delay in oil and gas production. In accordance with the provisions of those regulations, an emergency permit is issued to Jireh Resources L.L.C. for conversion and injection into Blackland 18W, located in Osage County, Oklahoma at 330' from south line, 1650' from west line, Southwest Quarter Section 1, Township 27N, Range 7E.

As permittee, you are authorized to inject salt water for disposal under the following conditions:

1. Mechanical integrity of the well must be demonstrated, to the satisfaction of the EPA, prior to injection.
2. The permittee is authorized to inject salt water into the Mississippi Chat at an injection interval depth of 2650 to 2720 feet below land surface.
3. Injection shall not result in the movement of fluid into an Underground Source of Drinking Water (USDW). The operating injection pressure at the wellhead shall not exceed 100 psig.
4. Injection volume shall be limited to a maximum of 45,000 barrels per month.

6WQ-SG: ABIERSCHENK: 12/19/2011: 06S1261P6320.6

6WQ-SG

DELLINGER DWYER

AFB 2-16-12

6WQ-S

DWYER

for all  
3-12-12

5. During the emergency authorization period, the owner/operator shall comply with UIC regulations at 40 C.F.R. §147 Subpart GGG .

A complete permit application has been submitted. Emergency authorization to inject shall remain in effect until EPA issues a final decision on the permit application. Failure to abide with the above requirements is a violation of the Safe Drinking Water Act and may result in enforcement action.

If you have any questions, or would like to discuss this emergency permit, please contact the permit writer, Mr. Arnold Bierschenk at (214) 665-7435.

Sincerely yours,

*Original Signed By William K. Honker*

William K. Honker, P.E.  
Acting Director  
Water Quality Protection Division

cc: BIA, Minerals Branch  
Osage UIC Office

**U.S. Environmental Protection Agency  
Public Notice of Draft UIC Permit(s)**

**MARCH 28, 2012**

**This is to give notice that the U.S. Environmental Protection Agency, Region 6, has formulated a Draft Permit for the following facility (facilities) under the Osage Mineral Reserve, Osage County, Oklahoma, Underground Injection Control (UIC) Program of the Safe Drinking Water Act. Development of the draft permit(s) was based on a preliminary staff review by EPA. The permit(s) will become effective within 15 days after the close of the comment period unless:**

- A. Comments received by APRIL 12, 2012, in accordance with §124.20, warrant a public notice of EPA's final permit decision.**
- B. A public hearing is held requiring delay of the effective date.**

**EPA's contact person for submitting written comments, requesting information regarding the draft permit, and/or obtaining copies of the permit and the Statement of Basis is:**

**Ms. Diane Smith  
Planning and Analysis Branch (6WQ-NP)  
U.S. Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202-2733  
(214) 665-2145**

**EPA's comments and public hearing procedures may be found at 40 CFR 124.10 and 124.12 (48 Federal Register 14264, April 1, 1983, as amended at 49 Federal Register 38051, September 26, 1984). Additional procedures pertaining to Osage County may be found at 40 CFR 147.2929 (d), Subpart GGG. The comment period during which written comments on the draft permit may be submitted extends 15 days from the date of this Notice. During the comment period, any interested person may request a Public Hearing by filing a written request which must state the issues to be raised. A public hearing will be held when EPA finds a significant degree of public interest.**

**EPA will consider all comments submitted either in writing or at a public hearing when making its final permit decision. Any person that files comments on the draft permit may appeal the final permit decision. Persons who did not comment on the draft permit may appeal only those changes made to the final permit subsequent to draft permit issuance. Appeals to the final permit decision must be submitted in writing to the Administrator within 30 days after a final permit decision has been issued. An appeal must contain the information set out in 40 CFR 124.19 and 147.2929(j)(3).**

**EPA will notify the applicant and each person who has submitted written comments of requested notice of the final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke or reissue, or terminate a permit. If a request for review of a final permit is granted, EPA will follow procedures found at 40 CFR 127.2929.**

**Further information including the administrative record is available for public review Monday through Friday from 8:00 a.m. to 4:00 p.m. at the Osage UIC Office, 100 West Main, Suite 304, Osage Agency Campus, P.O. Box 1495, Pawhuska, OK 74056 or at the EPA address referenced above. It is recommended that you write or call for an appointment so the record (s) will be available at your convenience.**

The Environmental Protection Agency (EPA) has received a complete Underground Injection Control (UIC) permit application number 06S1261P6320 from

Jireh Resources L.L.C.  
2526 East 71st Street-Suite A.  
Tulsa, Oklahoma 74136

The permittee proposes to convert Blackland 18W to a disposal injection well located in the Southwest Quarter Section 1, Township 27N, Range 7E, Osage County, Oklahoma. The application requests authorization to inject salt water into the Mississippi Chat at injection interval depth of 2650 to 2720 feet for disposal. The Underground Source of Drinking Water is at a depth of 622 feet below land surface. A maximum of 45,000 barrels per month will be injected at a maximum pressure of 100 psig.

EPA has issued emergency authorization to the permit applicant to inject salt water into the referenced well. The emergency authorization shall remain in effect until EPA issues a final decision on the permit application.

The permit application, supporting data submitted by the applicant, the EPA draft permit modification and statement of basis are available for public review Monday through Friday from 8:00 a.m. to 4:00 p.m. at the Osage UIC Office, 100 West Main, Suite 304, P.O. Box 1495, Pawhuska, OK 74056, (918) 287-5333 or at the Environmental Protection Agency, 1445 Ross Avenue, Dallas, TX 75202-2733, (214) 665-7150. Comments on the permit application and draft permit should be submitted to the Dallas office within 15 days of the date of this notice. Anyone desiring a hearing must submit a written request, identifying the issue(s) for discussion at the hearing, to the EPA office in Dallas, Texas, before the close of business on the last day of the comment period. EPA will give at least 30 days notice of the public hearing, if a hearing is held.

Scan Code: 07Permit No.: 06S1261P6320

December 19, 2011  
STATEMENT OF BASIS

For proposed Underground Injection Control Permit No. 06S1261P6320 to convert well Blackland 18W to a disposal injection well.

Issuing office: U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Applicant: Jireh Resources L.L.C.  
2526 East 71st Street-Suite A.  
Tulsa, Oklahoma 74136

1. As described in the application, the well is located in Osage County, Oklahoma, 330' from south line, 1650' from west line, Southwest Quarter Section 1, Township 27N, Range 7E.
2. On the basis of preliminary staff review, the Environmental Protection Agency has made a tentative determination to draft a permit for the construction of this well as described in the application.
3. The following is an explanation of the derivation of the conditions of the draft permit and the basis for them as required under 40 CFR §147.2929 dated November 15, 1984:

40 CFR §147.2904

The area around the proposed injection well or project must be evaluated to ensure that the proposed injection will not cause movement of fluid into an Underground Source of Drinking Water (USDW) through improperly sealed, completed, or abandoned wells. The permit applicant submitted information on all wells of public record penetrating the injection interval within 1/4 mile of the proposed injection site and can inject a maximum of 45,000 barrels per month.

6WQ-SG: ABIESCHENK:12/19/2011 06S1261P6320.2

6WQ-SG: *ABIESCHENK* *for all*

DELLINGER DWYER *3-12-12*

40 CFR §147.2919(a)

The well must be sited so that injection is into a formation which is separated from USDWs by a confining zone free of known open faults or fractures within the area of review. The proposed injection interval in the Mississippi Chat is at a depth of 2650 to 2720 feet and is approximately 2028 feet below the base of the USDW. A review of available data has shown no evidence of faults or fractures in the confining zone within the area of review.

40 CFR §147.2919(b)

The well must be cased and cemented to prevent fluid movement into or between USDWs. The base of the USDW occurs at 622 feet below land surface. Since the surface casing is set at 45 feet below land surface and cemented to surface with 12 sacks of cement and the longstring casing is set at 2740 feet below land surface cemented with 300 sacks to surface, this construction is adequate.

40 CFR §147.2920

To assure the protection of USDWs adjacent to the well bore, injection must be through an adequate tubing and packer. The packer must be set within 75 feet of the top of the injection interval. Since the top of the injection interval is at 2650 feet, the packer in this well must be set inside the casing between 2575 to 2645 feet of depth below land surface [40 CFR §147.2920(a)]. Injection pressure at the wellhead shall be limited so that it does not initiate new fractures or propagate existing fractures in the confining zone adjacent to any USDW [40 CFR §147.2920(c)]. In this well, the maximum injection pressure at the wellhead shall not exceed 100 psig.

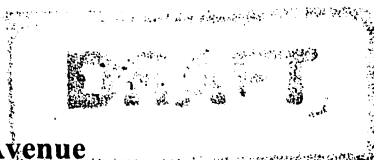
To assure that USDWs are protected from injection fluids, the well must maintain mechanical integrity. Mechanical integrity must be demonstrated prior to operation and at least once every five years thereafter [40 CFR §147.2920(b)].

For additional information, please contact:

Ms. Evelyn Rosborough  
Permit Processing Team (6WQ-NP)  
U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733  
(214) 665-7515



Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733



Scan Code: 07

UIC Permit No. 06S1261P6320  
Well No.: Blackland 18W

## AUTHORIZATION TO CONVERT A WELL TO AN INJECTION WELL UNDER THE UIC PROGRAM OSAGE MINERAL RESERVE

In compliance with the provisions of the Safe Drinking Water Act, (hereafter referred to as "the Act" or "SDWA") as amended (42 U.S.C. §300f et seq.),

Jireh Resources L.L.C.  
2526 East 71st Street-Suite A  
Tulsa, Oklahoma 74136

is authorized to convert a well to a Class II disposal injection well. This well is located at:

330 feet from the south line and 1650 feet from the west line, Southwest Quarter Section 1, Township 27N, Range 7E into the injection interval at a depth of 2650 to 2720 feet below land surface in the Mississippi Chat in accordance with the construction and operation requirements, injection pressure limits, reporting and monitoring requirements, and other conditions set forth in Parts I and II of this permit and the Osage Class II Underground Injection Control Program and Regulations.

**Unless authorization to inject is granted, this permit shall remain in effect for one year from the effective date shown below. Authorization to inject fluids into the well shall be granted only upon compliance with permit conditions, I.A.1., I.A.2., I.A.3., and I.B.1. Authorization to inject fluids into the well may be verbally granted by the Chief, Ground Water/UIC Section or by written "Authorization to Inject" from the Director, Water Quality Protection Division (6WQ). Upon authorization to inject, this permit shall remain in effect until the well is plugged or the permit is terminated.**

This permit shall become effective on

Prepared by

Issued on

Arnold Bierschen  
Environmental Scientist  
Ground Water/UIC Section  
(6WQ-SG)

6WQ-SG: ABIERSCHENK:12/19/2011

6WQ-SG

DELLINGER, DWYER

William K. Honker, P.E.  
Acting Director  
Water Quality Protection  
Division

06S1261P6320.1

6WQ-S *for all*  
*3-12-12*

Part I. SPECIAL PERMIT CONDITIONSA. Construction Requirements

1. The surface casing shall be set at 45 feet below land surface and set with 12 sacks of cement to surface, and the longstring casing set at 2740 feet below land surface cemented with 300 sacks of cement to surface.
2. The well shall be equipped with standard female fittings with cut-off valves connected to the tubing and the tubing/casing annulus so that the injection pressure and annulus pressure may be measured by an EPA representative by attaching a gauge having a standard male fitting.
3. Tubing and packer shall be installed. The packer shall be run on the tubing and set inside the casing between 2575 to 2645 feet of depth below the land surface.

B. Operating Requirements

1. Authorization to inject will not be granted until the permittee shows to the satisfaction of the Director, Water Quality Protection Division, pursuant to 40 CFR §147.2920(b)(1)(i) that the well has mechanical integrity. The well's mechanical integrity must be demonstrated prior to the start of injection and at least every five years thereafter. The permittee must notify the Osage UIC office at least five (5) days prior to mechanical integrity testing so that an EPA representative can witness the test.
2. Injection pressure at the wellhead shall not exceed 100 psig.
3. The permittee is authorized to inject salt water for disposal.
4. Injection volume shall be limited to 45,000 barrels per month.



Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Scan Code: 21

UIC Permit No.: 06S1261P6320  
Well No.: Blackland-McComb 18W

## MINOR MODIFICATION TO ENVIRONMENTAL PROTECTION AGENCY OSAGE COUNTY UIC PROGRAM

Permit No. 06S1261P6320

Dated: April 12, 2012

Permit conditions II.J.1 and II.L.4 prescribed by Permit No. 06S1261P6320 have been revised to read as follows:

- II.J.1. Samples and measurements taken for the purpose of monitoring shall be representative of the injection activity. Within 30 days of the effective date, the operator shall monitor the injection pressure (psi) and rate (bbl/day) once a day. Reporting of monitoring results shall be in accordance with procedures and at intervals prescribed in condition II.L.4 of this permit.
- II.L.4. Monitoring reports – Monitoring results shall be electronically reported by COB, Wednesday, for the preceding week and annually on the EPA Annual Disposal/Injection Well Monitoring Report form or an identical format. The reports shall specify the types of methods used to generate the monitoring data.

This minor modification is part of the permit and shall be attached thereto in accordance with 40 CFR Subpart GGG, §147.2927.

This minor permit modification shall become effective on

Prepared by

Issued on

*Chris Tingey*

Chris Tingey

Geologist

Ground Water/UIC Section

6WQ-SG: CTINGEY: 5/9/2017: 06S1261P6320.1M

6WQ-SG 6WQ-S *CET 5/10/2017*

DELLINGER BROWN

*MDO for*

*5/10/17*

*Brown*

*5/10/17*

William K. Honker, P.E.

Director

Water Division

7015 1520 0003 3990 2515

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See Reverse for Instructions

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*Jireh Resources, LLC*  
*5206 E 110th PL*  
*Tulsa, OK 74137*

**Permit No.: 06S1261P6320****Scan Code: 21**

11 MAY 2017

REPLY TO: 6WQ-SG

Certified Mail #7015 1520 0003 3990 6995 - Return Receipt Requested

Mr. David House, President  
Jireh Resources, LLC  
5206 E 110th PL  
Tulsa, Oklahoma 74137

Re: UIC Minor Permit Modification  
No. 06S1261P6320 - Osage County, Oklahoma

Dear Mr. House:

As my staff has recently discussed with you, the Environmental Protection Agency (EPA) is responding to confirmation of impacts to a tributary of North Bird Creek in Osage County, Oklahoma, by modifying the monitoring and reporting requirements of operating permits for nearby injection wells. Enclosed is the minor permit modification, which includes daily monitoring and weekly reporting, that has been drafted by this Agency under the authority of the Safe Drinking Water Act. EPA will provide you further information on the format, method of submittal, and to whom submittal shall be made.

We appreciate your cooperation in this matter. If you have any questions or would like to discuss this minor permit modification, please contact the permit writer, Chris Tingey at (214) 665-8364.

Sincerely yours,

William K. Honker, P.E.  
Director  
Water Division

Enclosures

cc: with enclosures  
BIA, Minerals Branch  
Osage UIC Office

Lanny Woods  
Jireh Resources, LLC  
P.O. Box 701230  
Tulsa, OK 74170

6WQ-SG: CTINGEY: 5/9/2017: 06S1261P6320.3M

6WQ-SG 6WQ-S *CEL 5/10/2017*

DELLINGER BROWN

*Brown*  
*5/10/17*

Permit No.: 06S1261P6320Scan Code: 07

MAR 25 2014

REPLY TO: 6WQ-SG

Certified Mail #7010 3050 0001 6500 2482 - Return Receipt Requested

Mr. Lanny Woods  
Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

Re: Draft UIC Permit Modification  
No. 06S1261P6320 - Osage County, Oklahoma

Dear Mr. Woods:

Enclosed are the public notice, statement of basis, and the permit which have been drafted by this Agency under the authority of the Safe Drinking Water Act. Any comments you wish to make may be submitted in writing by the due date stated in the public notice to Ms. Evelyn Rosborough at the EPA address above.

If you have any questions or would like to discuss this permit modification, please contact the permit writer, Mr. Bill Hurlbut at (214) 665-8305.

Sincerely yours,



*for* Stacey B. Dwyer, P.E.  
Associate Director  
Source Water Protection Branch

Enclosures

cc: with enclosures

BIA, Minerals Branch

Osage UIC Office *BA-3/7/14*6WQ-SG: BHURLBUT-~~6/5/13~~: 06S1261P6080.3M

6WQ-SG

DELLINGER

*WLB*

**U.S. Environmental Protection Agency  
Public Notice of Draft UIC Permit(s)**

**March 26, 2014**

**This is to give notice that the U.S. Environmental Protection Agency, Region 6, has formulated a Draft Permit for the following facility (facilities) under the Osage Mineral Reserve, Osage County, Oklahoma, Underground Injection Control (UIC) Program of the Safe Drinking Water Act. Development of the draft permit(s) was based on a preliminary staff review by EPA. The permit(s) will become effective within 15 days after the close of the comment period unless:**

- A. Comments received by April 10, 2014, in accordance with §124.20, warrant a public notice of EPA's final permit decision.**
- B. A public hearing is held requiring delay of the effective date.**

**EPA's contact person for submitting written comments, requesting information regarding the draft permit, and/or obtaining copies of the permit and the Statement of Basis is:**

**Ms. Diane Smith  
Planning and Analysis Branch (6WQ-NP)  
U.S. Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202-2733  
(214) 665-2145**

**EPA's comments and public hearing procedures may be found at 40 CFR 124.10 and 124.12 (48 Federal Register 14264, April 1, 1983, as amended at 49 Federal Register 38051, September 26, 1984). Additional procedures pertaining to Osage County may be found at 40 CFR 147.2929 (d), Subpart GGG. The comment period during which written comments on the draft permit may be submitted extends 15 days from the date of this Notice. During the comment period, any interested person may request a Public Hearing by filing a written request which must state the issues to be raised. A public hearing will be held when EPA finds a significant degree of public interest.**

**EPA will consider all comments submitted either in writing or at a public hearing when making its final permit decision. Any person that files comments on the draft permit may appeal the final permit decision. Persons who did not comment on the draft permit may appeal only those changes made to the final permit subsequent to draft permit issuance. Appeals to the final permit decision must be submitted in writing to the Administrator within 30 days after a final permit decision has been issued. An appeal must contain the information set out in 40 CFR 124.19 and 147.2929(j)(3).**

**EPA will notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke or reissue, or terminate a permit. If a request for review of a final permit is granted, EPA will follow procedures found at 40 CFR 127.2929.**

**Further information including the administrative record is available for public review Monday through Friday from 8:00 a.m. to 4:00 p.m. at the EPA address referenced above or at the Osage UIC Office, 100 West Main, Suite 304, P. O. Box 1495, Pawhuska, OK 74056. It is recommended that you write or call for an appointment so the record(s) will be available at your convenience.**

The Environmental Protection Agency (EPA) has received a complete Underground Injection Control (UIC) permit modification number 06S1261P6320 from

Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

The permittee proposes a permit modification for well number Blackland-McComb 18W, a salt water injection well located in the SW Quarter, Section 1, Township 27N, Range 07E, Osage County, Oklahoma. The modification will allow the operator to increase his maximum injection pressure to 200 psig and the injection volume to 90,000 barrels per month.

The permit, supporting data submitted by the applicant, the EPA draft permit modification and statement of basis are available for public review Monday through Friday from 8:00 a.m. to 4:00 p.m. at the Osage UIC Office, 100 West Main, Suite 304, P.O. Box 1495, First National Bank Building, Pawhuska, OK 74056, (918)287-5333 or at the Environmental Protection Agency, 1445 Ross Avenue, Dallas, TX 75202-2733, (214)665-7165. Comments on the permit and draft permit modification should be submitted to the Dallas office within 15 days of the date of this notice. Anyone desiring a hearing must submit a written request, identifying the issue(s) for discussion at the hearing, to the EPA office in Dallas, Texas, before the close of business on the last day of the comment period. EPA will give at least 30 days notice of the public hearing, if a hearing is held.

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**Scan Code: 07**

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**Permit No.: 06S1261P6320**

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The Environmental Protection Agency (EPA) has received a complete Underground Injection Control (UIC) permit modification number 06S1261P6320 from

Jireh Resources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

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*BO 3/7/14*  
6WQ-SG: BHURLBUT: 3/7/14: 06S1261P6280.5M

6WQ-SG

DELLINGER

*Pa d*

Scan Code 7

Permit No.: 06S1261P6320

March 7, 2014  
STATEMENT OF BASIS

For Underground Injection Control Permit No. 06S1261P6320 to modify a salt water disposal injection well.

Issuing office: U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Applicant: Jireh Resoources, LLC  
2526 East 71<sup>st</sup> Street, Suite A  
Tulsa, OK 74136

1. As described in the application, the well is located in Osage County, 330' FSL, 1650' FWL, SW/4, Section 1, Township 27N, Range 7E.
2. On the basis of preliminary staff review, the Environmental Protection Agency has made a tentative determination to draft a permit modification for this well as described in the modification request. More detailed information is available in the original Statement of Basis dated April 12, 2012.
3. The following is an explanation of the permit modification:

This modification will allow the operator to increase the injection pressure at the wellhead not to exceed 200 psig except during stimulation and increase the injection volume to 90,000 barrels per month.

For additional information, please contact:

Ms. Evelyn Rosborough  
Administrative Support Team (6WQ-CA)  
U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

~~11-18W\_OS6320~~  
6WQ-SG: BHURLBUT: 3/7/14: 06S1261P6320.2M

6WQ-SG 6WQ-S  
DELLINGER DWYER

*Felt for*

*DM*

Scan Code: 21

Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

UIC Permit No.: 06S1261P6320  
Well No.: Blackland-McComb 18W

## MODIFICATION TO ENVIRONMENTAL PROTECTION AGENCY OSAGE COUNTY UIC PROGRAM

Permit No. 06S1261P6320

Dated: April 12, 2012

Permit conditions I.B.2. and I.B.4. as prescribed by Permit No. 06S1261P6320 have been revised to read as follows:

I.B.2. Except during well stimulation, injection pressure at the wellhead shall not exceed 200 psig.

I.B.4. Injection volume shall be limited to 90,000 barrels per month.

This modification is part of the permit and shall be attached thereto in accordance with 40 CFR Subpart GGG, §147.2927.

This permit modification shall become effective on

Prepared by

Issued on

A handwritten signature in black ink, appearing to read "Bill Hurlbut".

Bill Hurlbut

Geologist

Ground Water/UIC Section

6WQ-SG: BHURLBUT: 3/7/14: 06S1261P6320.1M

6WQ-SG

6WQ-S

DELLINGER

DWYER

A handwritten signature in black ink, appearing to read "Dellinger".

A handwritten signature in black ink, appearing to read "Dwyer".

William Honker, P.E.

Director

Water Quality Protection Division

Scan 07

[APR 12 2012]

REPLY TO: 6WQ-NP

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7010 2780 0002 4355 8435)

Ms. Norma Standridge  
Jireh Resources L.L.C.  
2526 East 71<sup>st</sup> Street-Suite A  
Tulsa, Oklahoma 74136

Re: Underground Injection Control (UIC) Final Permit  
Permit No. 06S1261P6320 - Osage County, Oklahoma

Dear Ms. Standridge:

Enclosed is a copy of the final permit referenced above. Please read the entire permit in order to become familiar with the effective date and the conditions of the permit. You will notice that Permit Condition Number I.B.1. requires that the well pass a Mechanical Integrity Test and receive an Authorization to Inject from this office prior to any future operation of the well. Authorization to Inject will not be granted until you have satisfactorily demonstrated compliance with special permit conditions I.A.1., I.A.2., I.A.3., and I.B.1. The Agency will review each issued permit at least once every five years to determine whether it should be modified or terminated.

The Bureau of Indian Affairs (BIA) also requires that you apply for and receive authorization to complete the work described in the referenced permit application. Please contact the BIA office at (918) 287-5710 for further information. To schedule your well for testing, please contact the Osage UIC office in Pawhuska at (918) 287-5333.

If you have any questions please call Evelyn Rosborough at (214) 665-7515 at the Environmental Protection Agency (EPA) in Dallas.

Sincerely yours,

William K. Honker  
Acting Director  
Water Quality Protection Division (6WQ)

Enclosures

cc with enclosures:

BIA, Minerals Branch  
Osage UIC Office

Rosborough:04/10/2012:R:P6320

bcc with enclosures: Franke

Rosborough

6WQ

7010 2780 0002 4355 8435

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To: Ms. Norma Standridge  
Jireh Resources  
2526 East 71<sup>st</sup> Street-Suite A  
Tulsa, Oklahoma 74136

Sen  
Stre  
or F  
City

See Reverse for Instructions

PS Form 3800, August 2006

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS TX 75202-2733

11 MAY 2017

REPLY TO: 6WQ-SG

Certified Mail #7015 1520 0003 3990 6995 - Return Receipt Requested

Mr. David House, President  
Jireh Resources, LLC  
5206 E 110th PL  
Tulsa, Oklahoma 74137

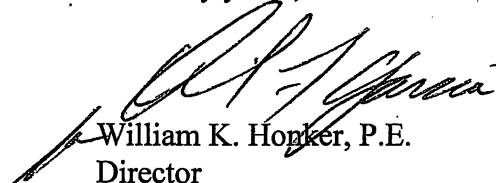
Re: UIC Minor Permit Modification  
No. 06S1261P6320 - Osage County, Oklahoma

Dear Mr. House:

As my staff has recently discussed with you, the Environmental Protection Agency (EPA) is responding to confirmation of impacts to a tributary of North Bird Creek in Osage County, Oklahoma, by modifying the monitoring and reporting requirements of operating permits for nearby injection wells. Enclosed is the minor permit modification, which includes daily monitoring and weekly reporting, that has been drafted by this Agency under the authority of the Safe Drinking Water Act. EPA will provide you further information on the format, method of submittal, and to whom submittal shall be made.

We appreciate your cooperation in this matter. If you have any questions or would like to discuss this minor permit modification, please contact the permit writer, Chris Tingey at (214) 665-8364.

Sincerely yours,



William K. Honker, P.E.  
Director  
Water Division

Enclosures

cc: with enclosures  
BIA, Minerals Branch  
Osage UIC Office

Lanny Woods  
Jireh Resources, LLC  
P.O. Box 701230  
Tulsa, OK 74170

Scan Code: 17



Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

UIC Permit No. 06S1261P6320  
Well No.: Blackland 18W

**AUTHORIZATION TO CONVERT A WELL TO  
AN INJECTION WELL UNDER THE UIC PROGRAM  
OSAGE MINERAL RESERVE**

In compliance with the provisions of the Safe Drinking Water Act, (hereafter referred to as "the Act" or "SDWA") as amended (42 U.S.C. §300f et seq.),

Jireh Resources L.L.C.  
2526 East 71st Street-Suite A.  
Tulsa, Oklahoma 74136

is authorized to convert a well to a Class II disposal injection well. This well is located at:

330 feet from the south line and 1650 feet from the west line, Southwest Quarter Section 1, Township 27N, Range 7E into the injection interval at a depth of 2650 to 2720 feet below land surface in the Mississippi Chat in accordance with the construction and operation requirements, injection pressure limits, reporting and monitoring requirements, and other conditions set forth in Parts I and II of this permit and the Osage Class II Underground Injection Control Program and Regulations.

**Unless authorization to inject is granted, this permit shall remain in effect for one year from the effective date shown below. Authorization to inject fluids into the well shall be granted only upon compliance with permit conditions, I.A.1., I.A.2., I.A.3., and I.B.1. Authorization to inject fluids into the well may be verbally granted by the Chief, Ground Water/UIC Section or by written "Authorization to Inject" from the Director, Water Quality Protection Division (6WQ). Upon authorization to inject, this permit shall remain in effect until the well is plugged or the permit is terminated.**

This permit shall become effective on

Prepared by

Issued on

Arnold Bierschenk  
Environmental Scientist  
Ground Water/UIC Section  
(6WQ-SG)

6WQ-SG: ABIERSCHENK: 12/19/2011  
6WQ-SG 6WQ-S  
DELLINGER DWYER

William K. Honker, P.E.  
Acting Director  
Water Quality Protection  
Division  
06S1261P6320.1

A. Construction Requirements

1. The surface casing shall be set at 45 feet below land surface and set with 12 sacks of cement to surface, and the longstring casing set at 2740 feet below land surface cemented with 300 sacks of cement to surface.
2. The well shall be equipped with standard female fittings with cut-off valves connected to the tubing and the tubing/casing annulus so that the injection pressure and annulus pressure may be measured by an EPA representative by attaching a gauge having a standard male fitting.
3. Tubing and packer shall be installed. The packer shall be run on the tubing and set inside the casing between 2575 to 2645 feet of depth below the land surface.

B. Operating Requirements

1. Authorization to inject will not be granted until the permittee shows to the satisfaction of the Director, Water Quality Protection Division, pursuant to 40 CFR §147.2920(b)(1)(i) that the well has mechanical integrity. The well's mechanical integrity must be demonstrated prior to the start of injection and at least every five years thereafter. The permittee must notify the Osage UIC office at least five (5) days prior to mechanical integrity testing so that an EPA representative can witness the test.
2. Injection pressure at the wellhead shall not exceed 100 psig.
3. The permittee is authorized to inject salt water for disposal.
4. Injection volume shall be limited to 45,000 barrels per month.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

33

OS 0922 4  
0924  
0926  
6320  
6213

April 3, 2014

REPLY TO: 6EN-WR

JIREH RESOURCES  
2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

Re: Annual Well Operation Report

Dear Operator:

Underground Injection Control (UIC) regulations require you to submit an annual report of injection activities to the Environmental Protection Agency. A report is due for each well for which a form is enclosed. You may use either the enclosed form or any other format that includes the required information. Please submit the report to the **Water Resources Section (6EN-WR); Environmental Protection Agency; 1445 Ross Avenue; Dallas, Texas 75202** within 30 days of the date of this letter.

The UIC permit for a well may require you to provide information in addition to that shown on the enclosed form. Submit that information with your report on a separate sheet of paper. Please review the permit for each of your injection wells to be sure that you are reporting all information required.

Data reported must be accurate and supported by your records. Osage UIC regulations require you to keep copies of monitoring reports and supporting records for at least three years.

If you have questions, please contact Ms. Emma Cornelius at 214-665-6479.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Willie Lane, Jr.".

Willie Lane, Jr.  
Chief  
Water Resources Section

Enclosures

Inventory No.: OS4081/OS6225Scan Code: 33

050922/050924/  
050926/054859/  
056213/056320

JUN 24 2013

REPLY TO: 6EN-WR

Mr. Lanny Woods  
Jireh Resources, LLC  
2526 East 7<sup>th</sup> Street, Suite A  
Tulsa, OK 74136

Re: Notice of Overdue Annual Well Operation Reports

<u>Inventory No.</u>	<u>Well No.</u>	<u>Location - Osage County, Oklahoma</u>
OS0922	9	NW/4, Sec. 1, T27N, R 7E
OS0924	4W	SW/4, Sec. 1, T27N, R 7E
OS0926	14W	SW/4, Sec. 1, T27N, R 7E
OS4859	14	NE/4, Sec. 22, T29N, R 9E
OS6213	15	SW/4, Sec. 1, T27N, R 7E
OS6320	18W	SW/4, Sec. 1, T27N, R7E

Dear Mr. Woods:

To date, we have not received required annual operation reports for the referenced wells for the period April 2012 through March 2013. Please submit the required reports to this office within 15 days. The reports must include the information on the enclosed forms. The Environmental Protection Agency (EPA) permit for Well No. 15 requires you to include the results of a fluid level measurement from the well with the annual report. Please show the results of that measurement on the enclosed form for the well.

The Safe Drinking Water Act authorizes the Environmental Protection Agency (EPA) to require annual reports. Under the Act, the EPA can issue orders or administrative penalties for failure to submit reports. To avoid this type of enforcement action, please submit the completed annual reports, within 15 days, as requested.

If you have any questions or already submitted the required reports, please contact Emma Cornelius at 214-665-6479.

Sincerely yours

Willie Lane, Jr.  
Chief  
Water Resources Section

Enclosures

cc: Osage Nation Environmental and Natural Resources Department  
BIA, Minerals Branch

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fw  
6/18/13

Invent. No.: OS6320/OS0927/  
OS0922  
 Scan Code: 36

<b>RECORD OF COMMUNICATION</b>	<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER	
	(Record of Item checked above)	
<b>TO:</b> Lanny Woods	<b>FROM:</b> Ron Van Wyk	<b>DATE:</b> 6/13/12
		<b>TIME:</b> 12:15pm
<b>Subject:</b> Complaint of Watered Out wells		

**Summary:** I told Mr. Woods we'd received a complaint that the 18W well was watering out wells to the south and west. I also told him that an inspection and the complaint had show daily rates of around 3200 barrels and 4000 barrels. He said he had no information on daily rates and asked when the observations were made. Said he would check. I told him that as long as he stayed below the permitted monthly rate, there is no violation, but it would probably be better to inject close to the average daily rate, since it would assure compliance without having to periodically shutting the well in. I also asked him the following:

1. Formation dip/orientation: He said that in the southern area dip was south and west. In other areas of the field, it is east, and somewhat flat in the north. Basically, the unit is in an anticline.

2. Effect of injection on Jireh wells: He said that he is unaware of any negative or positive effect on his production. He said there is a high water cut (.5 to 1.5 percent oil).

3. Reason 18 completed with perms below other wells: He said the goal was to inject below, or near the original oil/water interface in the formation. In actuality, any secondary recovery due to water flooding has long passed. At this time, water is being recirculated and stripping any residual oil.

Other subjects:

1. OS0927 – Asked him for the Osage Form No. 139 for plugging the well in 2010. He said the plugging was completed by the prior operator. He would look for records to see what he could provide.

2. OS0922: Told him that corrective action was due by July 1. He said he would talk to his field engineer to see what was happening there. He mentioned that the well has 300 psi and that pulling the packer was difficult.

**Conclusions/Actions Taken or Required:**

*Discussed w/ Charles Hurlbert  
 6/20/12  
 9:00 AM*

Inventory No.: OS6320Scan Code: 36

<b>RECORD OF COMMUNICATION</b>	<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER	
	(Record of Item checked above)	
<b>TO:</b> Rob Lyon, Link Oil	<b>FROM:</b> Ron Van Wyk	<b>DATE:</b> 6/12/12
		<b>TIME:</b> 2:00 pm
<b>Subject:</b> Watering Out Complaint		

**Summary:** Told Mr. Lyon that the production problems seem to be concentrated Southwest of the injection well. He said the formation dip is in that direction. He also said it is difficult to predict water flow and oil production due to formation characteristics. He said Well No. E3 has been inactive for a long time. Currently, they are putting larger pumps on the wells to keep up with increased water production.

I asked about his claim that production has suffered in Well Nos. D3, B12, and B4 due to increased injection into B7. Specifically, what is happening at Well No. B5. He said Well B5 has surface run-off flowing into well during rain events, so it could not be determined whether any increased water production is due to injection activities or surface water going into the well.

He mentioned that he had seen some effect from injection into Well No. 15 (OS6213) but not to the extent of recent injection.

Current problems began in February when Well No. 18 was drilled.

He said he mentioned concerns of injection into Well No. 18 to Jireh when he noticed that the location had been staked for drilling. He had not been previously notified of the proposed injection well before the permit had been issued. Jireh sent him a notice at that time, but the permit had already been issued so he couldn't send comments.

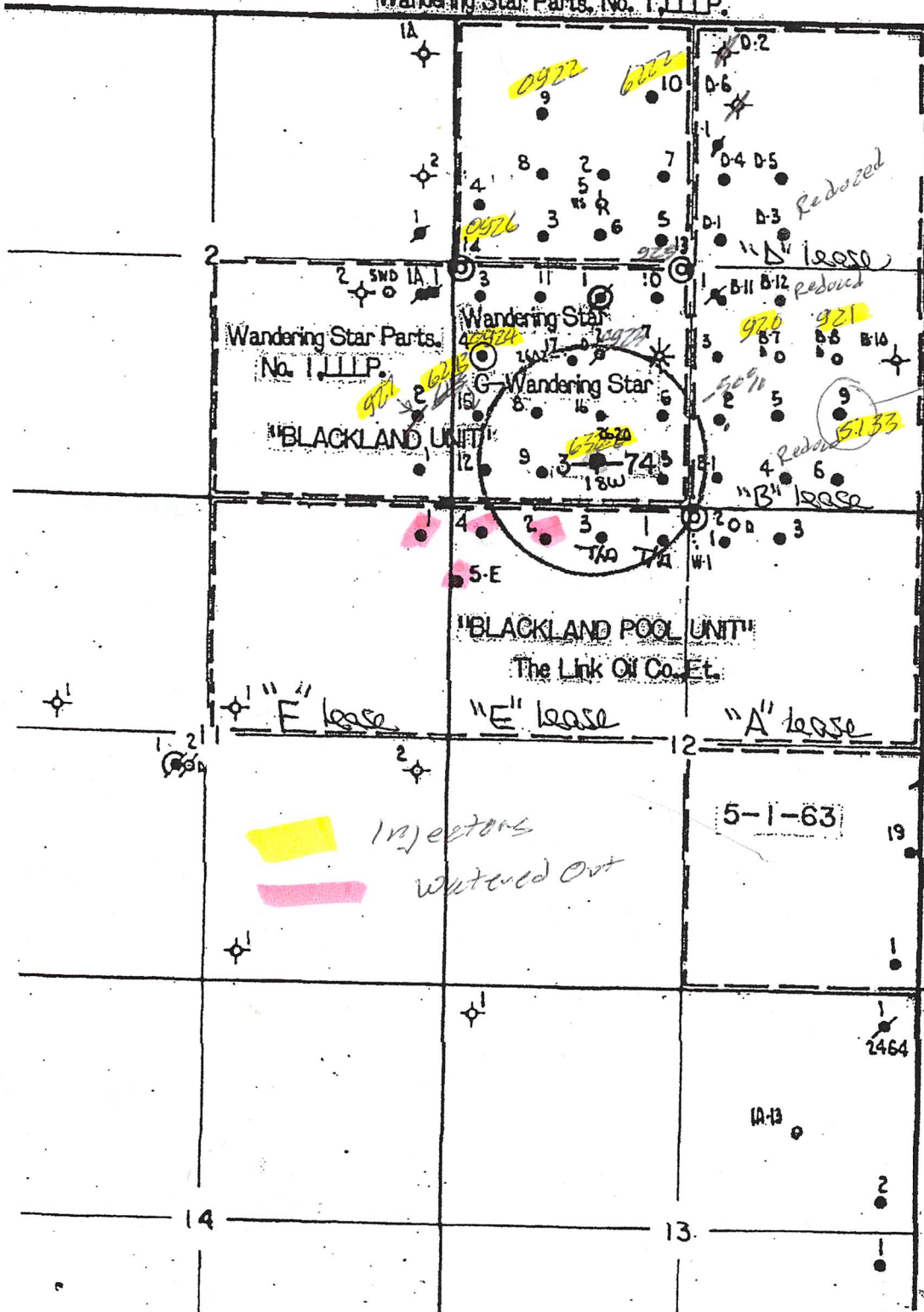
I explained that I wasn't sure EPA could do anything other than check on injection rate and enforce permit requirements. Our charge is to protect fresh ground water. We have no evidence that injection is affecting fresh water. As to production, he may be better served by discussing with the BIA and Minerals Council. They are concerned about production and revenue from production to the tribe.

#### **Conclusions/Actions Taken or Required:**

Discuss injection rate with Jireh.

SW1-27-7

"BLACKLAND POOL UNIT"  
Wandering Star Parts, No. 1, LLP.



RE

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W/

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700 psi  
33,000 CFM

Novy O&G, Inc., Et.

OSAGE B UNIT

**THE LINK OIL COMPANY**

427 SOUTH BOSTON, SUITE 1000  
TULSA, OKLAHOMA 74103-4146  
(918) 585-8343

056320

34

June 6, 2012

Mr. Ronald Van Wyk  
United States Environmental Protection Agency  
Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

RE: Water Injection Volumes  
Jireh Resources #OS 6320  
Blackland #18W SW/4 1-27N-7E  
Osage County, Oklahoma

Dear Mr. Van Wyk:

The Link Oil Company operates the Chapman-Osage Lease that is comprised of the E $\frac{1}{2}$  1, NW  $\frac{1}{4}$  11, and N $\frac{1}{2}$  12-27N-7E, Osage County, Oklahoma. This lease is classified as a waterflood but, in actuality, is really an oil-skimming operation. Historically, the offset operators, first with Texaco and Sun, and followed by Drummond & Hull cooperated with Link in keeping volumes and pressures within a certain range so that all parties could realize the maximum production from the respective leases.

However, the previous offset operator, Mariah Exploration followed by the current operator Jireh Resources, have ignored the "cooperative" waterflood concept and have ultimately impacted our production. Most recently, the above referenced well, although permitted for 45000 bpm @ 100 psi, is currently injecting over 3200 bpd (96000 bpm) @ 0 psi. I have included a photo of the meter for this well that shows a six (6) hour volume and I know Larry Stevens, an EPA Field Inspector, has verified similar volumes. The result is that we have several wells that have watered-out or have seen oil cuts markedly reduced. Specifically, our E-2, E-4, F-1 and E-5 wells (see enclosed map) have watered-out or nearly so. Our B-2 well has seen the oil cut decrease by 50%. Our B-7 injector well is now handling 6000 bpm more in volume since the Jireh Blackland 18W commenced injection. We are struggling to handle its increased volume of water. Our production from D-3, B-12 and B-4 are now suffering because of the increased water injected into B-7.

We have lost from 8-12 barrels of oil per day since the injection commenced on the Blackland 18W. Even at \$80.00/barrel, that's a loss of \$15,000.00 to \$22,600.00 per month. This is also a loss of \$3,240.00 to \$4,862.00 per month to the Osage Tribe.

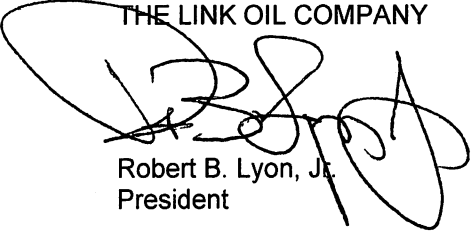
I respectfully request that enforcement of the permitted rates be implemented for the Blackland 18W well. I realize that, technically, 45000 barrels of water could be injected one day/month. My suggestion would be for the "flow rate" shown on the bottom gauge of the enclosed picture to read no greater than 150. This would ensure that the allowable amount of salt water has not been exceeded.

Page Two  
Mr. Ronald Van Wyk  
June 6, 2012

I appreciate any attention you may give to this request. My concern stems from not only a loss of production and revenue, but also whether lost production can even be restored with lower injection rates. Has this production been irreparably harmed?

Sincerely,

THE LINK OIL COMPANY



Robert B. Lyon, Jr.  
President

RBLjr/mr

Enclosures

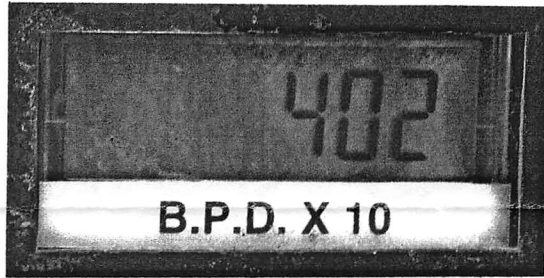
CC: Arnold Bierschenk, EPA Dallas  
Melissa Currey, Superintendent, BIA, Pawhuska  
Charles Hurlburt, Chief Engineer, BIA, Pawhuska

6/3/12

6 hour reading



TOTALIZER



FLOW RATE

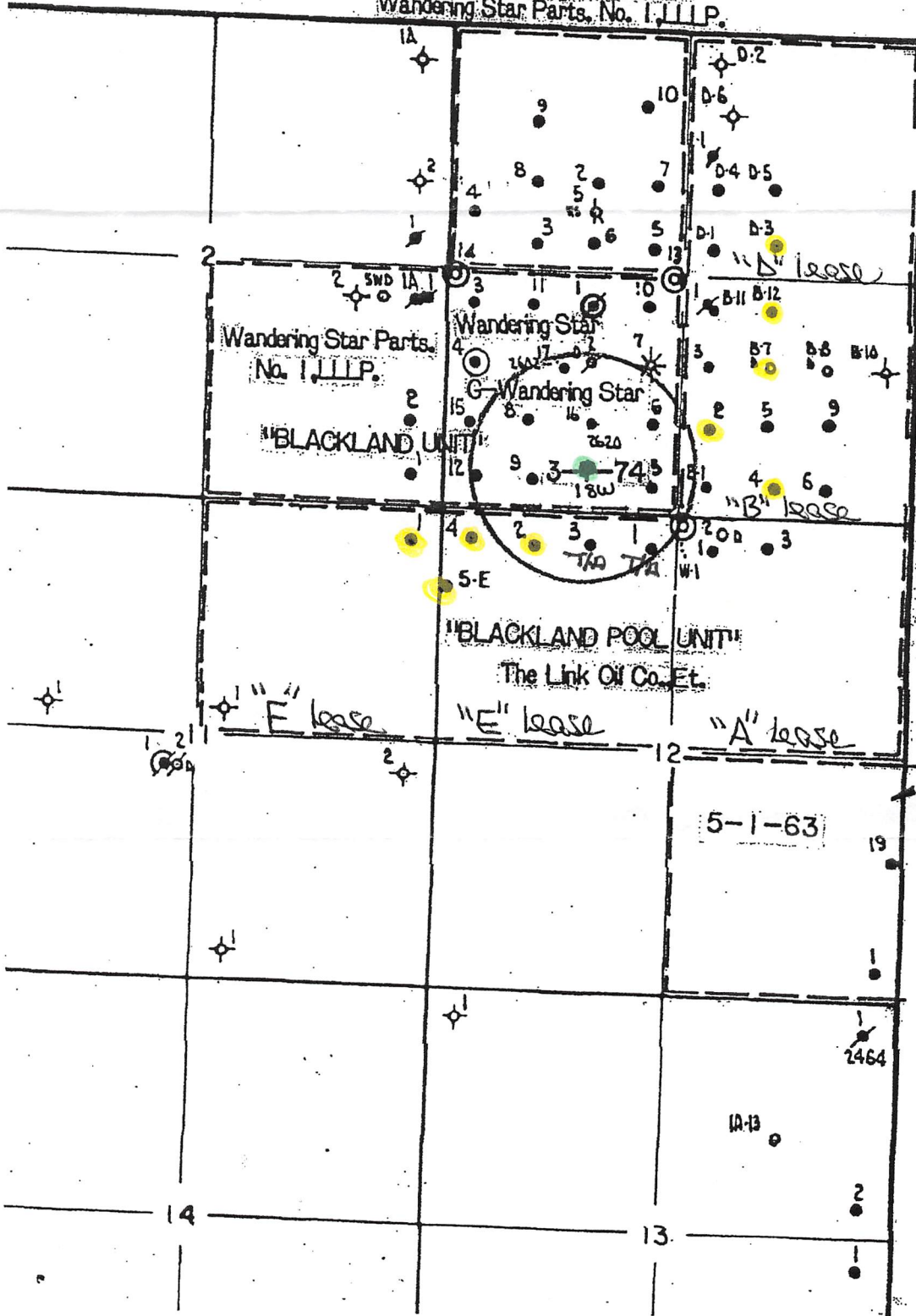
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incorporated.com

SW1-27-7

"BLACKLAND POOL UNIT"  
Wandering Star Parts, No. 1, L.L.P.



RE

\* "ENE

E/

\*

**OS6320****Ron VanWyk** to: Arnold Bierschenk

06/05/2012 09:07 AM

From: Ron VanWyk/R6/USEPA/US  
To: Arnold Bierschenk/R6/USEPA/US@EPA

Larry called and said he had a complaint from Robert Lyon (Link Oil) that this well was watering out his production wells. I told him that as long as the injection was in compliance with the permit, I could do little. Suggested that Mr. Lyon send a letter to you and copy me, or vice versa about the situation. Also, he should notify the BIA.

Ronald Van Wyk  
Water Enforcement Branch, EPA  
1445 Ross Avenue  
Dallas, TX 75202

214-665-6459  
vanwyk.ron@epa.gov

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TEXAS 75202-2733

March 31, 2017

JIREH RESOURCES  
PO BOX 701230  
TULSA OK 74170

~~05 6320~~  
6213  
0922  
0924

Re: Annual Well Operation Report

Dear Operator:

Underground Injection Control (UIC) regulations require you to submit an annual report of injection activities to the Environmental Protection Agency. A report is due for each well for which a form is enclosed. You may use either the enclosed form, or any other format that includes the required information. Please submit the report(s) via postal mail, within 30 days of the date of this letter to:

**Mr. Hillol Ray**  
**Water Resources Section (6EN-WR)**  
**Environmental Protection Agency**  
**1445 Ross Avenue**  
**Dallas, Texas 75202-2733**

If you prefer, you may submit the report(s) as an attachment **with an e-mail to:**  
[ray.hillol@epa.gov](mailto:ray.hillol@epa.gov); or, via fax # **214-665-2168 (Attention: Mr. Hillol Ray)**.

The UIC permit for a well may require you to provide information in addition to that shown on the enclosed form. Submit that information with your report on a separate sheet of paper. Please review the permit for each of your injection wells to be sure that you are reporting all information required.

Data reported must be accurate and supported by your records. Federal UIC regulations require you to keep copies of monitoring reports and supporting records for at least three years.

If you have questions, please contact Mr. Hillol Ray of my staff, at 214-665-7502.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Willie Lane, Jr.".

Willie Lane, Jr.

Chief

Water Resources Section

Enclosure(s)

We promote compliance with Federal environmental regulations in partnership with our States and Tribes  
Internet Address (URL) • <http://www.epa.gov>



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TEXAS 75202-2733(32)  
OS 0922  
0924  
6320  
6213

April 2, 2015

JIREH RESOURCES  
2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

Re: Annual Well Operation Report

Dear Operator:

Underground Injection Control (UIC) regulations require you to submit an annual report of injection activities to the Environmental Protection Agency. A report is due for each well for which a form is enclosed. You may use either the enclosed form, or any other format that includes the required information. Please submit the report(s) via postal mail, within 30 days of the date of this letter to:

**Ms. Emma Cornelius**  
**Water Resources Section (6EN-WR)**  
**Environmental Protection Agency**  
**1445 Ross Avenue**  
**Dallas, Texas 75202-2733**

If you prefer, you may submit the report(s) as an attachment with an e-mail to:  
**cornelius.emma@epa.gov. or, via fax # 214-665-2168 (Attention: Ms. Emma Cornelius).**

The UIC permit for a well may require you to provide information in addition to that shown on the enclosed form. Submit that information with your report on a separate sheet of paper. Please review the permit for each of your injection wells to be sure that you are reporting all information required.

Data reported must be accurate and supported by your records. Federal UIC regulations require you to keep copies of monitoring reports and supporting records for at least three years.

If you have questions, please contact Ms. Emma Cornelius of my staff, at 214-665-6479.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Willie Lane, Jr.".

Willie Lane, Jr.  
Chief  
Water Resources Section

Enclosure(s)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS TX 75202-2733

(32)  
050922 6  
0924  
0926  
4859  
6320  
6213  
0927

April 2, 2013

REPLY TO: 6EN-WR

JIREH RESOURCES  
2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

Re: Annual Well Operation Report

Dear Operator:

Underground Injection Control (UIC) regulations require you to submit an annual report of injection activities to the Environmental Protection Agency. A report is due for each well for which a form is enclosed. You may use either the enclosed form or any other format that includes the required information. Please submit the report to the **Water Resources Section (6EN-WR); Environmental Protection Agency; 1445 Ross Avenue; Dallas, Texas 75202** within 30 days of the date of this letter.

The UIC permit for a well may require you to provide information in addition to that shown on the enclosed form. Submit that information with your report on a separate sheet of paper. Please review the permit for each of your injection wells to be sure that you are reporting all information required.

Data reported must be accurate and supported by your records. Osage UIC regulations require you to keep copies of monitoring reports and supporting records for at least three years.

If you have questions, please contact Ms. Emma Cornelius at 214-665-6479.

Sincerely yours,

Willie Lane, Jr.  
Chief  
Water Resources Section

Enclosures

United States Environmental Protection Agency  
Underground Injection Control Program  
1445 Ross Avenue  
Dallas, TX 75202-2733

29

## Annual Disposal/Injection Well Monitoring Report

Operator: JIREH RESOURCES  
PO BOX 701230  
TULSA OK 74170

Owner: JIREH RESOURCES  
PO BOX 701230  
TULSA OK 74170

State: OK County: OSAGE

Inventory Number: OS6320000

Tr Section: SW Section: 01

Township: 27N

Range: 07E

Surface Location: 330S/1650W

Well Activity

Disposal

No. of Wells: 10

Particulate  
wells

Type of Permit

☒ Individual

☐ Area

Lease Name

McCumb "Blackland"

Well Number

18W

Month/Year	Injection Pressure		Total Volume Injected		Tubing-Casing Annulus Pressure (Optional Monitor)	
	Avg PSIG	Max PSIG	BBL	MCF	Min PSIG	Max PSIG
Apr 2016	74	100	50,264			
May 2016	73	100	55,473			
Jun 2016	58	100	52,771			
Jul 2016	45	50	41,850			
Aug 2016	5	50	3042			
Sep 2016	104	200	45,134			
Oct 2016	103	120	79,831			
Nov 2016	113	170	80,227			
Dec 2016	142	200	76,670			
Jan 2017	144	200	69,956			
Feb 2017	83	180	65,556			
Mar 2017	120	190	69,401			

## CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. (Ref. 40 CFR 122.22).

Name and Official Title:

Signature:

Date Signed:

LAWRY A. Woods V.P.



3/31/2017

Entered

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**P. O. Box 1495  
Pawhuska, OK 74056Inspector: J. Andrew Yates Dt/Tm Inspected: 9/6/2016 1:30:00 PM Duration: 0.8  
Operator Representative: CHANCE CRAWFORD Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_**General Well Data and Inspection Information**Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
P.O. BOX 701230 Well Name/No.: McCOMB 18W 18W Status: UN  
TULSA, OK 74170 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G**ROUTINE W/MIT INSPECTION**Purpose: \_\_\_\_\_ Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: ijay1625155657 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_**Pressures / Conditions**Date Last MIT: 9/6/2016 Test Result: \_\_\_\_\_ Casing: 4.500 in. Tubing: 2.375 in. USDW: \_\_\_\_\_ ft subsurfMonitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: Active  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: N  
Injecting?: N

	Tubing	Annulus	
Fittings:	<u>Y</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>0</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>UIC</u>	<u>UIC</u>	Min Req Press: _____
Static Fluid Level:	<u>0</u>	<u>0</u>	Max Rate: _____
How Determined?:	<u>O</u>	<u>O</u>	
Injection Rate (bpd):	<u>0</u>	<u>0</u>	How Rate Determined? <u>CI</u>

**Comments**ACTIVE WELL, HELD PRESSURE-OK.Evaluation: Name: JM Date: 9/9/16Inspection Results: I Follow-up: A Reason: SECViolation Code: 0 Frequency: NR

Received Date: 9/9/2016

**Mechanical Integrity Test Results**

SCAN CODE: 28

**Casing or Annulus Pressure Test****Osage Nation / Environmental Protection Agency**

P.O. Box 1495

Pawhuska, OK 74056

Inspector: **J. Andrew Yates**Test Date: **09/06/2016**Test Time: **1:30 PM**Operator Representative: **CHANCE CRAWFORD**

Date Report Sent to Operator: \_\_\_\_\_

**General Well Data**Operator: **JIREH RESOURCES, LLC - 1486**Inventory Number: **OS6320**

P.O. BOX 701230

API Well No.: **35-113-99940-00-78**

TULSA, OK 74170

Well Name/No.: **McCOMB 18W**Location: **SW 1 27N 7E 330S - 1650W**

Phone: \_\_\_\_\_

Field name: \_\_\_\_\_

Injection Interval: **2502 - 2740** USDW Bot: \_\_\_\_\_Well Type: **SWD**Annulus Fluid Type: \_\_\_\_\_ Concentric Pkr: **-** Packer Depth: **2449** Casing: **4.500** in. Tubing: **#####** in.**Tubing and Annulus Pressure Test Results**Type of MIT: **Std. Annulus Pres. Test**Test Reason: **Post Workover Test**Inj. Status: **N** Inj. Rate: **0** bpd Tubular Lining: **Plastic** Time Since Ann Filled: \_\_\_\_\_ Hrs

	<u>Time</u>	<u>Tubing Pressure</u>	<u>Time</u>	<u>Annulus Pressure</u>	<u>Flowback</u>	<u>Pressure</u>	<u>Volume</u>
Pre-Test:		<b>0</b>		<b>0</b> psi	High:	<b>220</b> psi	
Initial:	<b>1:30 PM</b>	<b>0</b>		<b>220</b> psi	Mid:	<b>110</b> psi	<b>1800</b> ml
Mid:	<b>1:45 PM</b>	<b>0</b>		<b>220</b> psi	Low:	<b>20</b> psi	<b>1200</b> ml
Final:	<b>2:00 PM</b>	<b>0</b>		<b>220</b> psi	End:	<b>0</b> psi	<b>250</b> ml
					Total Volume:		<b>3250</b> ml

**Casing/Tubing Annulus Monitoring**

Device: \_\_\_\_\_

Fluid Level: \_\_\_\_\_ Annulus Prs: \_\_\_\_\_ psi

Test Result: **Acceptable**

Failure Type: \_\_\_\_\_

Failure Cause: \_\_\_\_\_

Repair Due: \_\_\_\_\_

Engineer Signature: **Rick L. Davis**Review Date: **09/08/2016****ADA Pressure Test - Required Test Pressure**

(Fluid Column Ht \* Specific Gravity \* .433 / N2 Wt Fac = Required Test Pressure)

	<u>Tubing</u>	<u>Annulus</u>
Depth to Top Perf/Open Hole:	_____ ft	_____ ft
Depth to Fluid Level:	_____ ft	_____ ft
Fluid Column Height:	_____ ft	_____ ft
Specific Gravity of Fluid:	<b>1.06</b>	<b>1.06</b>
Nitrogen Weight Factor:	_____	_____
Required Test Pressure:	_____ psi	_____ psi

**Additional Comments for Mechanical Integrity Test**

COMPANY CMT'D. 4.5" LINER IN WELL. RUN TBG.  
& PKR. BACK IN WELL.

Received Date: 9/9/2016

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**P. O. Box 1495  
Pawhuska, OK 74056Inspector: J. Andrew Yates Dt/Tm Inspected: 9/23/2016 1:00:00 PM Duration: 1.0  
Operator Representative: CHANCE CRAWFORD Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_**General Well Data and Inspection Information**Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
P.O. BOX 701230 Well Name/No.: McCOMB 18W 18W Status: UN  
TULSA, OK 74170 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G**ROUTINE W/MIT INSPECTION**Purpose: \_\_\_\_\_ Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: iJAY1627040640 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_**Pressures / Conditions**Date Last MIT: 9/23/2016 Test Result: \_\_\_\_\_ Casing: 4.500 in. Tubing: 2.880 in. USDW: \_\_\_\_\_ ft subsurfMonitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: Active  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: Y  
Injecting?: N

	Tubing	Annulus	
Fittings:	<u>Y</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>0</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>UIC</u>	<u>UIC</u>	Min Req Press: _____
Static Fluid Level:	_____	<u>0</u>	Max Rate: _____
How Determined?:	_____	<u>O</u>	
Injection Rate (bpd):	_____	How Rate Determined?	_____

**Comments**ACTIVE WELL, HELD PRESSURE-OK.Evaluation: Name: Jm Date: 10/7/16  
Inspection Results: I Follow-up: A Reason: SEC  
Violation Code: 0 Frequency: NR Received Date: 9/30/2016

**Mechanical Integrity Test Results**

SCAN CODE: 28

**Casing or Annulus Pressure Test****Osage Nation / Environmental Protection Agency**

P.O. Box 1495

Pawhuska, OK 74056

Inspector: J. Andrew Yates Test Date: 09/23/2016 Test Time: 1:00 PM  
 Operator Representative: CHANCE CRAWFORD Date Report Sent to Operator: \_\_\_\_\_

**General Well Data**

Operator: JIREH RESOURCES, LLC - 1486 Inventory Number: OS6320  
P.O. BOX 701230 API Well No.: 35-113-99940-00-78  
TULSA, OK 74170 Well Name/No.: McCOMB 18W  
 Location: SW 1 27N 7E 33S - 1650W  
 Phone: \_\_\_\_\_ Field name: \_\_\_\_\_  
 Injection Interval: 2502 - 2740 USDW Bot: \_\_\_\_\_ Well Type: SWD  
 Annulus Fluid Type: \_\_\_\_\_ Concentric Pkr: - Packer Depth: 2460 Casing: 4.500 in. Tubing: ##### in.

**Tubing and Annulus Pressure Test Results**

Type of MIT: Std. Annulus Pres. Test Test Reason: Post Workover Test  
 Inj. Status: N Inj. Rate: \_\_\_\_\_ bpd Tubular Lining: Seal-tite Dual Time Since Ann Filled: \_\_\_\_\_ Hrs

	<u>Time</u>	<u>Tubing Pressure</u>	<u>Time</u>	<u>Annulus Pressure</u>	<u>Flowback</u>	<u>Pressure</u>	<u>Volume</u>
Pre-Test:		<u>0</u>		<u>0</u> psi	High:	<u>200</u> psi	
Initial:	<u>1:00 PM</u>	<u>0</u>		<u>200</u> psi	Mid:	<u>100</u> psi	<u>1250</u> ml
Mid:	<u>1:15 PM</u>	<u>0</u>		<u>200</u> psi	Low:	<u>20</u> psi	<u>1000</u> ml
Final:	<u>1:30 PM</u>	<u>0</u>		<u>200</u> psi	End:	<u>0</u> psi	<u>500</u> ml
					Total Volume:		<u>2750</u> ml

**Casing/Tubing Annulus Monitoring**

Device: \_\_\_\_\_  
 Fluid Level: \_\_\_\_\_ Annulus Prs: \_\_\_\_\_ psi  
 Test Result: Acceptable  
 Failure Type: \_\_\_\_\_  
 Failure Cause: \_\_\_\_\_  
 Repair Due: \_\_\_\_\_  
 Engineer Signature: Rick L. Davis  
 Review Date: 09/29/2016

**ADA Pressure Test - Required Test Pressure**

(Fluid Column Ht \* Specific Gravity \* .433 / N2 Wt Fac = Required Test Pressure)

	<u>Tubing</u>	<u>Annulus</u>
Depth to Top Perf/Open Hole:	_____ ft	_____ ft
Depth to Fluid Level:	_____ ft	_____ ft
Fluid Column Height:	_____ ft	_____ ft
Specific Gravity of Fluid:	<u>1.06</u>	<u>1.06</u>
Nitrogen Weight Factor:	_____	_____
Required Test Pressure:	_____ psi	_____ psi

**Additional Comments for Mechanical Integrity Test**

CO. R&R TBG. W/ 2.88" SEALTITE TBG./ CLEANED  
OUT WELL AND ACIDIZED FORMATION.

**Mechanical Integrity Test Results**

SCAN CODE: 28

**Casing or Annulus Pressure Test****Osage Nation / Environmental Protection Agency**

P.O. Box 1495

Pawhuska, OK 74056

Inspector: Larry StephensTest Date: 05/29/2013Test Time: 11:10 AMOperator Representative: TED POPE

Date Report Sent to Operator: \_\_\_\_\_

**General Well Data**Operator: Grayhorse Operating, Inc. -Inventory Number: OS525820 East 5Th - Suite 320API Well No.: 35-113-34206-00-00Tulsa, Ok 74103Well Name/No.: OSAGE "B"Location: NW 18 27N 8E 990N - 990WPhone: (918) 382-9201

Field name: \_\_\_\_\_

Injection Interval: 2470 - 2960USDW Bot: 540-622Well Type: SWDAnnulus Fluid Type: \_\_\_\_\_ Concentric Pkr: - Packer Depth: 2450 Casing: 4.500 in. Tubing: ##### in.**Tubing and Annulus Pressure Test Results**Type of MIT: Std. Annulus Pres. TestTest Reason: Post Workover TestInj. Status: N Inj. Rate: \_\_\_\_\_ bpd Tubular Lining: Ceramic Time Since Ann Filled: \_\_\_\_\_ Hrs

	<u>Time</u>	<u>Tubing Pressure</u>	<u>Time</u>	<u>Annulus Pressure</u>	<u>Flowback</u>	<u>Pressure</u>	<u>Volume</u>
Pre-Test:		<u>0</u>		<u>0</u> psi	High:	<u>220</u> psi	
Initial:	<u>11:10 AM</u>	<u>0</u>		<u>220</u> psi	Mid:	<u>100</u> psi	<u>15100</u> ml
Mid:	<u>11:25 AM</u>	<u>0</u>		<u>220</u> psi	Low:	<u>20</u> psi	<u>11800</u> ml
Final:	<u>11:40 AM</u>	<u>0</u>		<u>220</u> psi	End:	<u>0</u> psi	<u>7800</u> ml
					Total Volume:		<u>34700</u> ml

**Casing/Tubing Annulus Monitoring**

Device: \_\_\_\_\_

Fluid Level: \_\_\_\_\_ Annulus Prs: \_\_\_\_\_ psi

Test Result: Failure

Failure Type: \_\_\_\_\_

Failure Cause: \_\_\_\_\_

Repair Due: \_\_\_\_\_

Engineer Signature: Rick L. DavisReview Date: 06/24/2013**ADA Pressure Test - Required Test Pressure**

(Fluid Column Ht \* Specific Gravity \* .433 / N2 Wt Fac = Required Test Pressure)

	<u>Tubing</u>	<u>Annulus</u>
Depth to Top Perf/Open Hole:	_____ ft	_____ ft
Depth to Fluid Level:	_____ ft	_____ ft
Fluid Column Height:	_____ ft	_____ ft
Specific Gravity of Fluid:	<u>1.06</u>	<u>1.06</u>
Nitrogen Weight Factor:	_____	_____
Required Test Pressure:	_____ psi	_____ psi

**Additional Comments for Mechanical Integrity Test**

PACKER AT 2408'; POST WORKOVER MIT---HELD  
PRESSURE OK. PULL AND LAYDOWN OLD 3.5"  
TUBING AND PACKER. PICK UP NEW STRING OF  
4.5 INCH TUBING AND REBUILT PACKER. SET  
PACKER AT 2408'.

Received Date: 6/26/2013

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**P. O. Box 1495  
Pawhuska, OK 74056Inspector: Larry Stephens Dt/Tm Inspected: 9/16/2014 12:00:00 PM Duration: 0.5  
Operator Representative: NONE Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_**General Well Data and Inspection Information**Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
2526 EAST 71ST ST. STE A Well Name/No.: OKLAND 18W Status: UN  
TULSA, OK 74136 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G**ROUTINE UIC INSPECTION**Purpose: Routine Periodic Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: iLMS1427544993 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_**Pressures / Conditions**Date Last MIT: 3/19/2012 Test Result: \_\_\_\_\_ Casing: 5.500 in. Tubing: 2.875 in. USDW: \_\_\_\_\_ ft subsurfMonitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: Active  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: Y  
Injecting?: Y

	Tubing	Annulus	
Fittings:	<u>N</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>-25</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>UIC</u>	<u>OV</u>	Min Req Press: _____
Static Fluid Level:	_____	_____	Max Rate: _____
How Determined?:	_____	_____	
Injection Rate (bpd):	_____	_____	How Rate Determined? _____

**Comments**ACTIVE WELLEvaluation: Name: Della Date: 10-22-14Inspection Results: 1 Follow-up: A Reason: SeeViolation Code: none Frequency: NR

Received Date: 10/8/2014

**United States Environmental Protection Agency  
Underground Injection Control Program  
1445 Ross Avenue  
Dallas, TX 75202-2733**

**Annual Disposal/Injection Well Monitoring Report**

**Operator:** JIREH RESOURCES

2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

**Owner:** JIREH RESOURCES

2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

**State:** OK **County:** OSAGE

**Inventory Number:** OS6320000

**Qtr Section:** SW **Section:** 01

**Township:** 27N

**Range:** 07E

**Surface Location:** 330S/1650W

**Well Activity**

Disposal

No. of Wells: 10  
*Prod well*

**Type of Permit**

☒ Individual

☐ Area

**Lease Name**

*McCumb - "Blackclad"*

**Well Number**

18W

Month/Year	Injection Pressure		Total Volume Injected		Tubing-Casing Annulus Pressure (Optional Monitor)	
	Avg PSIG	Max PSIG	BBL	MCF	Min PSIG	Max PSIG
Apr 2015	73	100	34,700			
May 2015	78	95	35,400			
Jun 2015	72	100	36,800			
Jul 2015	83	100	38,040			
Aug 2015	77	92	43,400			
Sep 2015	75	100	44,500			
Oct 2015	82	90	45,200			
Nov 2015	77	100	47,200			
Dec 2015	84	105	48,200			
Jan 2016	73	95	49,470			
Feb 2016	80	100	50,250			
Mar 2016	72	90	51,480			

**CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. (Ref. 40 CFR 122.22).

**Name and Official Title:**

*LAWRY A. WOODS  
V.P.*

**Signature:**

*[Signature]*

**Date Signed:**

*4/27/2016*

United States Environmental Protection Agency  
Underground Injection Control Program  
1445 Ross Avenue  
Dallas, TX 75202-2733

29

Annual Disposal/Injection Well Monitoring Report

Operator: JIREH RESOURCES

2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

Owner: JIREH RESOURCES

2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

State: OK County: OSAGE

Inventory Number: OS6320000

Qtr Section: SW Section: 01

Township: 27N

Range: 07E

Surface Location: 330S/1650W

Well Activity

Disposal

No. of Wells: 7

Type of Permit

☒ Individual

☐ Area

Lease Name

M'Comb

Well Number

18W

Month/Year	Injection Pressure		Total Volume Injected		Tubing-Casing Annulus Pressure (Optional Monitor)	
	Avg PSIG	Max PSIG	BBL	MCF	Min PSIG	Max PSIG
Apr 2013	VAC	VAC	41,750			
May 2013			42,250			
Jun 2013			43,40			
Jul 2013			41,050			
Aug 2013			44,250			
Sep 2013			43,675			
Oct 2013			44,500			
Nov 2013			43,175			
Dec 2013			42,190			
Jan 2014			43,725			
Feb 2014			44,150			
Mar 2014			44,500			

**CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. (Ref. 40 CFR 122.22).

Name and Official Title:

Larry A Woods  
Manager

Signature:



Date Signed:

4/17/2014

United States Environmental Protection Agency  
Underground Injection Control Program  
1445 Ross Avenue  
Dallas, TX 75202-2733

29

Annual Disposal/Injection Well Monitoring Report

**Operator:** JIREH RESOURCES  
2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

**Owner:** JIREH RESOURCES  
2526 EAST 71ST STREET, SUITE A  
TULSA OK 74136

**State:** OK **County:** OSAGE

**Inventory Number:** OS6320000

**Qtr Section:** SW **Section:** 01 **Township:** 27N **Range:** 07E **Surface Location:** 330S/1650W

**Well Activity**

Disposal

No. of Wells: 1

**Type of Permit**

☒ Individual

☐ Area

**Lease Name**

McLomb

**Well Number**

18W

Month/Year	Injection Pressure		Total Volume Injected		Tubing-Casing Annulus Pressure (Optional Monitor)	
	Avg PSIG	Max PSIG	BBL	MCF	Min PSIG	Max PSIG
Apr 2012	50	100	44560			
May 2012			44880			
Jun 2012			44790			
Jul 2012			44900			
Aug 2012			44760			
Sep 2012			44950			
Oct 2012			44800			
Nov 2012			44750			
Dec 2012			44950			
Jan 2013			44800			
Feb 2013			43210			
Mar 2013			44560			

**CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. (Ref. 40 CFR 122.22).

**Name and Official Title:**

Nathan Buchanan

**Signature:**

Nathan Buchanan

**Date Signed:**

8/15/2013

Operations Manager

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**P. O. Box 1495  
Pawhuska, OK 74056Inspector: Larry Stephens Dt/Tm Inspected: 6/4/2012 1:00:00 PM Duration: 0.4  
Operator Representative: NONE Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_**General Well Data and Inspection Information**Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
2526 EAST 71ST ST. STE A Well Name/No.: OKLAND 18W Status: UN  
TULSA, OK 74136 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G**ROUTINE UIC INSPECTION**Purpose: Operator Request Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: iLMS1216329208 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_**Observed Items**

Code	Description	Date Rescheduled
01	Absent Well Identification Signs	

**Pressures / Conditions**Date Last MIT: 3/19/2012 Test Result: \_\_\_\_\_ Casing: 5.500 in. Tubing: 2.875 in. USDW: \_\_\_\_\_ ft subsurfMonitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: Active  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: Y  
Injecting?: Y

	<b>Tubing</b>	<b>Annulus</b>	
Fittings:	<u>Y</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>-30</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>UIC</u>	<u>OV</u>	Min Req Press: _____
Static Fluid Level:	_____	_____	Max Rate: _____
How Determined?:	_____	_____	
Injection Rate (bpd):	_____	_____	How Rate Determined? _____

**Comments**

CONTACTED BY OFFSET OPERATOR TO CHECK THE WELL FOR EXCESSIVE INJECTION VOLUME. MADE 1ST CHECK AT 1PM ON 6/4/2012. READING WAS 668 BBLS AT RATE OF 650 BBLS PER DAY. 2ND READING AT 8AM ON 6/5/2012 AND METER READ 2996 TOTAL AND INJECTING AT A RATE OF 710 BPD.

Evaluation: Name: *Larry Stephens* Date: 6/19/12Inspection Results: 1 Follow-up: A Reason: SeeViolation Code: None Frequency: NR

Received Date: 6/12/2012

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**P. O. Box 1495  
Pawhuska, OK 74056Inspector: Larry Stephens Dt/Tm Inspected: 5/22/2012 12:00:00 PM Duration: 1.0  
Operator Representative: NONE Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_**General Well Data and Inspection Information**Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
2526 EAST 71ST ST. STE A Well Name/No.: OKLAND 18W Status: UN  
TULSA, OK 74136 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G**ROUTINE UIC INSPECTION**Purpose: Permit Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: iLMS1215329368 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_**Observed Items**

Code	Description	Date Rescheduled
01	Absent Well Identification Signs	

**Pressures / Conditions**Date Last MIT: 3/19/2012 Test Result: \_\_\_\_\_ Casing: 5.500 in. Tubing: 2.875 in. USDW: \_\_\_\_\_ ft subsurfMonitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: Active  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: Y  
Injecting?: Y

	Tubing	Annulus	
Fittings:	<u>Y</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>-30</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>UIC</u>	<u>OV</u>	Min Req Press: _____
Static Fluid Level:	_____	_____	Max Rate: _____
How Determined?:	_____	_____	
Injection Rate (bpd):	_____	_____	How Rate Determined? _____

**Comments**ACTIVE INJECTION WELL; PERMIT WELL NOW CONNECTED AND INJECTEDEvaluation: Name:  Date: 6/19/12Inspection Results: 1 Follow-up: A Reason: SeeViolation Code: None Frequency: NR

Received Date: 6/12/2012

**Well Inspection**

Scan Code: 30

**Osage Nation / Environmental Protection Agency**

P. O. Box 1495

Pawhuska, OK 74056

Inspector: Larry Stephens Dt/Tm Inspected: 3/19/2012 1:10:00 PM Duration: 0.9  
Operator Representative: NATHAN BUCHANON Dt Scheduled: \_\_\_\_\_ Dt Op Notified \_\_\_\_\_

**General Well Data and Inspection Information**

Operator: JIREH RESOURCES, LLC Inventory No.: OS6320 API Well No. 35-113-99940-00-78  
2526 EAST 71ST ST. STE A Well Name/No.: CKLAND 18W Status: UN  
TULSA, OK 74136 Location: SW 1 27N 7E 1650W - 330S Well Type: SWD  
Phone: \_\_\_\_\_ Field Nm: \_\_\_\_\_ Lat/Lng: 36.84119, 96.504909 G

**ROUTINE W/MIT INSPECTION**

Purpose: \_\_\_\_\_ Responsible Company at Time of Inspection: JIREH RESOURCES, LLC  
Inspect No.: iLMS1208040793 Notification Type: \_\_\_\_\_  
Incident No.: \_\_\_\_\_ Date Letter Sent to Owner: \_\_\_\_\_ Extension Date: \_\_\_\_\_  
Comply No.: \_\_\_\_\_ Date Remedy Required: \_\_\_\_\_ Date Passed: \_\_\_\_\_

**Observed Items**

Code	Description	Date Rescheduled
18	Absent Well Identification Signs	

**Pressures / Conditions**

Date Last MIT: 3/19/2012 Test Result: \_\_\_\_\_ Casing: 5.500 in. Tubing: 2.875 in. USDW: \_\_\_\_\_ ft subsurf

Monitoring Device Elected: \_\_\_\_\_  
Monitoring Device: \_\_\_\_\_  
FLM Canister Pressure: \_\_\_\_\_  
Lease Status: InActive  
Barrel Monitor Hooked Up?: \_\_\_\_\_  
Barrel Fluid Level (%): \_\_\_\_\_  
Flowline Hooked Up?: N  
Injecting?: N

	Tubing	Annulus	
Fittings:	<u>Y</u>	<u>Y</u>	<b>AUTHORIZED</b>
Actual Pressure:	<u>0</u>	<u>0</u>	Max Pressure: <u>1500</u>
How Determined?:	<u>OV</u>	<u>OV</u>	Min Req Press: _____
Static Fluid Level:	<u>1203</u>	<u>0</u>	Max Rate: _____
How Determined?:	<u>E</u>	<u>O</u>	
Injection Rate (bpd):	_____	How Rate Determined?	_____

**Comments**

PERMIT WELL; CONVERTING FROM PRODUCTION WELL TO INJECTION WELL; HELD  
PRESSURE OK; SHOT FLUID LEVEL DOWN TUBING AND GATHERED LAT/LONG DATA.

Evaluation: Name: *Nathan Buchanan* Date: 4/19/12

Inspection Results: 10 Follow-up: D Reason: PRM

Violation Code: None Frequency: EM

Received Date: 4/16/2012

**Mechanical Integrity Test Results**

SCAN CODE: 28

**Casing or Annulus Pressure Test****Osage Nation / Environmental Protection Agency**

P.O. Box 1495

Pawhuska, OK 74056

Inspector: Larry StephensTest Date: 03/19/2012Test Time: 1:10 PMOperator Representative: NATHAN BUCHANON

Date Report Sent to Operator: \_\_\_\_\_

**General Well Data**Operator: JIREH RESOURCES, LLC - 1486Inventory Number: OS63202526 EAST 71ST ST. STE AAPI Well No.: 35-113-99940-00-78TULSA, OK 74136Well Name/No.: BLACKLAND 18WLocation: SW 1 27N 7E 330S - 1650W

Phone: \_\_\_\_\_

Field name: \_\_\_\_\_

Injection Interval: 2502 - 2740 USDW Bot: \_\_\_\_\_Well Type: SWDAnnulus Fluid Type: \_\_\_\_\_ Concentric Pkr: - Packer Depth: 2490 Casing: 5.500 in. Tubing: ##### in.**Tubing and Annulus Pressure Test Results**Type of MIT: Std. Annulus Pres. TestTest Reason: New PermitInj. Status: N Inj. Rate: \_\_\_\_\_ bpd Tubular Lining: Plastic Time Since Ann Filled: \_\_\_\_\_ Hrs

	Time	Tubing Pressure	Time	Annulus Pressure	Flowback	Pressure	Volume
Pre-Test:		0		0	High:	210	psi
Initial:	1:10 PM	0		210	Mid:	100	psi 2600 ml
Mid:	1:25 PM	0		210	Low:	20	psi 2100 ml
Final:	1:40 PM	0		210	End:	0	psi 250 ml
					Total Volume:		4950 ml

**Casing/Tubing Annulus Monitoring**

Device: \_\_\_\_\_

Fluid Level: \_\_\_\_\_ Annulus Prs: \_\_\_\_\_ psi

Test Result: Acceptable

Failure Type: \_\_\_\_\_

Failure Cause: \_\_\_\_\_

Repair Due: \_\_\_\_\_

Engineer Signature: Rick L. DavisReview Date: 03/21/2012**ADA Pressure Test - Required Test Pressure**

(Fluid Column Ht \* Specific Gravity \* .433 / N2 Wt Fac = Required Test Pressure)

	Tubing	Annulus
Depth to Top Perf/Open Hole:	_____ ft	_____ ft
Depth to Fluid Level:	_____ ft	_____ ft
Fluid Column Height:	_____ ft	_____ ft
Specific Gravity of Fluid:	<u>1.06</u>	<u>1.06</u>
Nitrogen Weight Factor:	_____	_____
Required Test Pressure:	_____ psi	_____ psi

**Additional Comments for Mechanical Integrity Test**NEW PERMIT WELL; PACKER AT 2490'; HELDPRESSURE OK

*Need Auth  
to Inject*

Received Date: 3/27/2012